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**FIGURE 1**

GCTCTGAGAAGCCGGACTACGCGGCAGCGGCTCTTCAAAGCGGAGCCGGGAGTTTTTGCTACAGTTTTCGCCACC  
ATGAGTCGCAGCTATAATGATGAGCTGCAGTTCTTGGAGAAGATCAATAAAAACTGCTGGAGGATCAAGAAGGGC  
TTCGTGCCCAACATGCAGGTTGAAGGTGTTTTCTATGTGAATGATGCTCTGGAGAAATTGATGTTTGAGGAATTA  
AGGAATGCCTGTGAGGTGGTGGTGGTGGGCTTCCTGCCAGCCATGAAACAGATTGGCAATGTGGCAGCCCTG  
CCTGGAATTGTTTCATCGATCTATTGGGCTTCCTGATGTCCATTCAGGATATGGGTTTGCTATTGGGAACATGGCA  
GCCTTTGATATGAATGACCCTGAAGCAGTAGTATCCCCAGGTGGTGTGCGGTTTGACATCAACTGTGGTGTCCGC  
TTGCTAAGAACCAATTTAGATGAAAGTGATGTCCAGCCTGTGAAGGAGCAACTTGCCCAAGCTATGTTTGACCAC  
ATTCTGTGTTGGGGTGGGGTCAAAAGGTGTCATCCCAATGAATGCCAAAGACTTGAGGAGGCCCTTGGAGATGGGG  
GTGGACTGGTCCTTAAGAGAAGGGTATGCCTGGGCTGAAGACAAGGAGCACTGCGAGGAGTACGGAAGGATGCTG  
CAGGCTGACCCCAATAAAGTTTTCTGCAAGGGCGAAGAAAAGAGGCCCTTCCTCAGTTGGGGACCCTGGGAGCAGGC  
AACCATTATGCAGAAATCCAGGTTGTGGATGAGATTTCAATGAGTATGCTGCTAAAAAATGGGCATCGACCAT  
AAGGGACAGGTGTGTGTGATGATCCACAGTGGAAGCAGAGGCTTGGGCCACCAAGTAGCCACAGATGCGCTGGTA  
GCTATGGAGAAGGCCATGAAGAGAGACAAGATTATAGTCAATGATCGGCAGTTGGCTTGTGCTCGAATCGCTTCC  
CCAGAGGGTCAAGACTATCTGAAGGGAATGGCAGCTGCTGGGAACTATGCCTGGGTCAACCGCTCTTCCATGACC  
TTCTTAACCCGTGAGGCTTTTCGCCAAGGTCTTCAACACAACCCCTGATGACTTGGACCTACATGTGATCTATGAT  
GTTTCTCACAACATTGCCAAAGTGGAGCAGCATGTGGTGGACGGAAGGAACGGACACTGTTAGTACACAGGAAG  
GGATCCACCCGCGCTTTCCCTCCTACCATCCCCCTATTGCTGTTGATTACCAACTCACTGGACAGCCAGTGCTC  
ATTGGTGGCACCATGGGAACCTGTAGTTATGTTCTTACTGGCACTGAACAGGGCATGACTGAGACCTTTGGAACA  
ACCTGTCAITGGAGCGGGCCGTGCATTGTCCCGAGCAAAATCTCGACGTAATTTAGATTTCCAGGATGTCTTAGAC  
AAATTGGCAGATATGGGAATTGCGATCCGTGTTGCCCTACCCAAACTGGTTATGGAAGAGGCTCCTGAGTCCTAT  
AAGAATGTGACAGATGTGGTAAATACCTGCCATGATGCTGGAATCAGCAAGAAAGCCATTAAACTGAGACCAATT  
GCTGTGATCAAAGGATTAGAACCTTGGACAGCAGGGCTGCCTGACACCACCAACCCTCTCTGAAGTGGAGTGGAC  
TGACATGCTCTTCTGACATCAGACTCAAGGCGGGACAAGTTGCAAAGTGTGCAGCTGTAAGTGGTCAACGCCAAAA  
TGGCTGATGGGGAGGCTGCTGCTTTTCAGGGGCCCCGTGCTTGTAATAAACCCTTCCAGGAAGAGGCACATTGCCCA  
CCTTTGGAAAGGGAGGAATATGCCTTCTCCTTGGTTGTTCCACAGAGTTTTAGGAAAAATCTGTTAGGGATGGGTA  
GATGTCAAACCTGCCTTACGCAGTCATACTGATCTTTAGCCATCAGATTGATCTTCTTACACCAAGCTCTGTTTA  
CATTCCGAGAGGTGTCATGAAGAAAGTTCTGTTCAATAAGGTTTTGGAATGTTTC

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**FIGURE 2**

MSRSYNDELQFLEKINKNCWRIKKGFVPNMQVEGVFYVNDALFKLMFEELRNACRGGGVGGFLPAMKQIGNVAAL  
PGIVHRSIGLPDVHSGYGFAIGNMAAFDMNDPEAVVSPGGVGFDINCGVRLLRNLDESQVPVKEQLAQAMFDH  
IPVGVGSKGVIPMNAKDLEEALEMGVDSLSREGYAWAEDKEHCEEYGRMLQADPNKVSARAKKRGLPQLGTLGAG  
NHYAIEIQVVDEIFNEYAAKKMGIDHKGQVCVMIHSGSRGLGHQVATDALVAMEKAMKRDKIIVNDRQLACARIAS  
PEGQDYLKGMMAAGNYAWVNRSSMTFLTRQAFKVFNTTPDDLHLHVIYDVSHNIAKVEQHVVVDGKERTLLVHRK  
GSTRAFPPHHPLIAVDYQLTGQFVLIGGTMTGTCYVLTGTETQGMTETFGTTCHGAGRALSRKSRRLDFQDVL  
KLADMGIAIRVASPKLVMEAPESYKNVTDVVNTCHDAGISKKAIKLRPIAVIKG

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**FIGURE 3**

CGGTTGGTGCGGCCTCCATTGTTTCGTGTTTTAAGGCGCCATGAGGGGTGACAGAGGCCGTGGTCGTGGTGGGCGC  
TTTGGTTCCAGAGGAGGCCAGGAGGAGGGTTCAGGCCCTTTGTACCACATATCCCATTGACTTCTATTTGTGT  
GAAATGGCCTTTCCCGGGTCAAGCCAGCACCTGATGAACTTCCTTCAGTGAGGCCCTTGCTGAAGAGGAATCAG  
GACCTGGCTCCCAATTCTGCTGAACAGGCATCTATCCTTTCTCTGGTGACAAAAATAACAATGTGATTGATAAT  
CTGATTGTGGCTCCAGGGACATTTGAAGTGCAAATTGAAGAAGTTCGACAGGTGGGATCCTATAAAAAGGGGACA  
ATGACTACAGGACACAATGTGGCTGACCTGGTGGTGATACTCAAGATTCTGCCAACGTTGGAAGCTGTTGCTGCC  
CTGGGGAACAAAGTCGTGGAAAGCCTAAGAGCACAGGATCCTTCTGAAGTTTTAACCATGCTGACCAACGAACT  
GGCTTTGAAATCAGTTCTTCTGATGCTACAGTGAAGATTCTCATTACAACAGTGCCACCCAATCTTCGAAAAGT  
GATCCAGAATCCATTTGGATATCAAAGTATTGCAGAGTGCCCTTAGCAGCCATCCGACATGCCCGCTGGTTCGAG  
GAAAATGCTTCTCAGTCCACAGTTAAAGTTCTCATCAGACTACTGAAGGACTTGAGGATTCGTTTTCTGGCTTT  
GAGCCCCTCACACCCTGGATCCTTGACCTACTAGGCCATTATGCTGTGATGAACAACCCACCAGACAGCCTTTG  
GCCCTAAACGTTGCATACAGGCGCTGCTTGACAGATTCTGGCTGCAGGACTGTTCTGCCAGGTTTCAGTGGGTATC  
ACTGACCCCTGTGAGAGTGGCAACTTTAGAGTACACACAGTCATGACCCTAGAACAGCAGGACATGGTCTGCTAT  
ACAGCTCAGACTCTCGTCCGAATCCTCTCACATGGTGGCTTTAGGAAGATCCTTGCCAGGAGGGTGATGCCAGC  
TATCTTGCTTCTGAAATATCTACCTGGGATGGAGTGATAGTAACACCTTCAGAAAAGGCTTATGAGAAGCCACCA  
GAGAAGAAGGAAGGAGAGGAAGAAGAGGAGAATACAGAAAGAACCACCTCAAGGAGAGGAAGAAGAAAGCATGGA  
AACTCAGGAGTGACATTCCCTTCACTCCTTTTCTACCCAAGGGAAAGACTGGAGCCTAAGCTGCCTGCTACTGG  
CTTTACATGGTGACAGACATTCCGTGGATAGGAAGATAGCAGGAGAAAGTAACTCCATAGAGTGTCAATCCACTG  
GTTGATATTGGCTTAGCTGCCAGTCTCCCATTTGTGACCTATGCCATCCATCTATAATGGAGGATACCAACATTT  
CTTCCTAATATTCTATAATCTCCAACCTCCTGAAAACCCCTCTCTCAACTAATACTTTGCTGTTGAAATGTTGTGA  
AATGTTAAGTGTCTGGAAATTTTTTTTCTAAGAAAACTATTAAAGTACTT

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**FIGURE 4**

MRGDRGRGRGGFRFGSRGGPGGGFRPFVPHIPFDLYCEMAFPRVKPAPDETSFSEALLKRNQDLAPNSAEQASIL  
SLVTKINNVIDNLIAPGTFEVQIEEVQRQVGSYKKGTMTTGHNVADLVVILKILPTLEAVAALGNKVVESLRAQD  
PSEVLTMLTNETGFEISSDATVKILITTVPNLRKLDPELHLDIKVLQSALAAIRHARWFEENASQSTVKVLIR  
LLKDLRIRFPGFEP LTPWILDLLGHYAVMNNPTRQPLALNVAYRRCLQILAAGLFLPGSVGITDPCESGNFRVHT  
VMTLEQQDMVCYTAQTLVRILSHGGFRKILGQEGDASYLASEISTWDGVIVTPSEKAYEKPPEKKEGEEEEENTE  
RTTSRRGRRKHGNSGVTFPSLLFLPKGKTGA



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**FIGURE 5**

CGGTTCTCCAAGCACCCAGCATCCTGCTAGACGCGCCGCGCACCGACGGAGGGGACATGGGCAGAGCAATGGTGG  
CCAGGCTGGGGCTGGGGCTGCTGCTGCTGGCACTGCTCCTACCCACGCAGATTTATTCCAGTGAAACAACAACCTG  
GAACTTCAAGTAACTCCTCCAGAGTACTTCCAACCTCTGGGTTGGCCCCAAATCCAATAATGCCACCACCAAGG  
CGGCTGGTGGTGCCCTGCAGTCAACAGCCAGTCTCTTCGTGGTCTCACTCTCTCTCTCTGTCATCTCTACTCTTAAG  
AGACTCAGGCCAAGAAACGCTCTTCTAAATTTCCCCATCTTCTAAACCCAATCCAATGGCGTCTGGAAGTCCAAT  
GTGGCAAGGAAAAACAGGTCTTCATCGAATCTACTAATTCCACACCTTTTATTGACACAGAAAATGTTGAGAATC  
CCAAATTTGATTGATTTGAAGAACATGTGAGAGGTTTGACTAGATGATGAATGCCAATATTAAATCTGCTGGAGT  
TTCATGTACAAGATGAAGGAGAGGCAACATCCAAAATAGTTAAGACATGATTTCCCTGAATGTGGCTTGAGAAAT  
ATGGACACTTAATACTACCTTGAAAATAAGAATAGAAATAAAGGATGGGATTGTGGAATGGAGATTGAGTTTTCA  
TTGGTTCATTAATTCTATAAGGCCATAAAACAGGTAATATAAAAAGCTTCCATCGATCTATTTATATGTACATGA  
GAAGGAATCCCCAGGTGTTACTGTAATTCCTCAACGTATTGTTTCGACGGCACTAATTTAATGCCGATATACTCT  
AGATGAATGTTTACATTGTTGAGCTATTGCTGTTCTCTTGGGAACGAACTCACTTTCCTCCTGAGGCTTTGGAT  
TTGACATTGCATTTGACCTTTTAGGTAGTAATTGACATGTGCCAGGGCAATGATGAATGAGAATCTACCCAGAT  
CCAAGCATCCTGAGCAACTCTTGATTATCCATATTGAGTCAAATGGTAGGCATTTCCATACCTGTTTCCATTTC  
AACAAGAGCACTACATTCTTTTAGCTAAACGGATTCCAAAGAGTAGAATTGCATTGACCACGACTAATTTCAAAA  
TGCTTTTTATTATTATTATTTTTTAGACAGTCTCACTTTGTGCGCCAGGCCGGAGTGCAGTGGTGCGATCTCAGA  
TCAGTGTACCATTTGCCTCCCGGGCTCAAGCGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCAC  
CTGCCACCATGCCCGGCTAATTTTTGTAATTTTAGTAGAGACAGGGTTTACCATGTTGCCCAGGCTGGTTTAGA  
ACTCCTGACCTCAGGTGATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCTTGAGCCCCCGCGCCCA  
GCCATCAAAATGCTTTTTATTCTGCATATGTTTGAATACTTTTTACAATTTAAAAAAATGATCTGTTTTGAAGG  
CAAAATTGCAATCTTGAAATTAAGAAGGCAAAATGTAAAGGAGTCAAATAAATCAAGTATTGGGAAGTGA  
AGACTGGAAGCTAATTTGCATAAATTCACAACTTTTATACTCTTTCTGTATATACATTTTTTTCTTTAAAAAA  
CAACTATGGATCAGAAATAGCAACATTTAGAACACTTTTGTATCAGTCAATATTTTGTAGATAGTTAGAACCTGG  
TCCTAAGCCTAAAAGTGGGCTTGATTCTGCAGTAAATCTTTTACAACCTGCCTCGACACACATAAACCTTTTTAAA  
AATAGACACTCCCCGAAGTCTTTTGTGTTGATGGTCACACACTGATGCTTAGATGTTCCAGTAATCTAATATGGC  
CACAGTAGTCTTGATGACCAAGTCCTTTTTTTCCATCTTTAGAAAACCTACATGGGAACAAACAGATCGAACAGT  
TTTGAAGCTACTGTGTGTGTAATGAACACTCTTGCTTTATTCCAGAATGCTGTACATCTATTTTGGATTGTATA  
TTGTGGTTGTGATTTTACGCTTTGATTCATAGTAACTTCTTATGGAATTGATTGTCATTGAACGACAAACTGTAA  
ATAAAAAGAAACGGTG

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**FIGURE 6**

MGRAMVARLGGLLLLLALLLPQIYSSETTTGTSSNSSQSTSNGLAPNPTNATTKAAGGALQSTASLFVVSLSL  
LHLYS

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**FIGURE 7**

GGCCCGGCCCGCGGCGGCGGCAAAGGGGCGGAGGGGTTCGCTGCCAGCAATTGCCAAGCTGCTGCGGTCGTGGCG  
GGATGGTATAGCCGGGCTGAGGGCGGGCGGCGGGGCGCGGGCGGGGCGAGGCGGCCGGGAAGGGCCGACGCCG  
CCTGACTGGCTTGGGAGCAGCGGCAGCAAGCTGAGGGGGCGTCGCCGCCGCCGGCCCCGGCGCCGCCCGGGAG  
GCCGCGCCCCGCCATGGCGGCGGCGGGCGGTGCTGGACGAGTTCACTGCGCCAGCTGAGAAGGCGGAGCTGCTGGAG  
CAGAGCCGCGGCCGTATCGAGGGCCTGTTTGGCGTGAGCCTAGCCGTGCTCGGCGCGCTAGGGGCTGAGGAGCCG  
CTGCCCCGCGCGCATCTGGCTGCAGCTCTGCGGGGCGCAGGAGGCGGAGCACAGCGCCAAGGAATATATTAAAGGA  
ATCTGTGAACCTGAAGTAGAAGAAAGAGAATGTTACCCCAAGGACATGCACTGCATTTTTTGTGGGGCAGAGAGC  
CTGTTTCTGAAAAGCTTGATTGAGGATACTTGTGCTGACCTCTGCATTCTGGACATTGGCCTTCTTGGCATCAGA  
GGAAGTGCTGAGGCTGTGGTTCATGGCTAGGAGTCACATTCAACAATTTGTAAAGCTCTTTGAAAATAAAGAGAAC  
CTACCCAGTAGTCAGAAAGAATCAGAGGTGAAAAGGGAATTCAAACAATTTGTTGAAGCCCATGCAGACAATTAC  
ACAATGGATTTGTTGATTTTGCCCACTTCCTTGAAAAAGAACTTTTGACACTCACACAAGGTGAGGAGAATCTC  
TTTGAAACAGGAGATGATGAGGTTATTGAAATGAGAGATTCTCAACAACAGAGTTTACACAGAATGCTGCCACA  
GGGCTGAATATTTCTAGAGATGAACTGTTTTGCAGGAAGAGGCAAGAAATAAAGCTGGGACTCCTGTTTCTGAG  
CTTACAAAACAAATGGACACAGTCCTTTCTAGCTCACCAGATGTGCTTTTTGATCCAATAAATGGTCTAACCCCA  
GATGAAGAGGCACTTTCCAATGAGAGAATTTGTGAGAAAAGGAGATTTTCTGATTCTGAAGAAAGGCATACGAAG  
AAGCAGTTTTCTTTGGAAAATGTTTCAAGGAGGGGAGATTTTACACGATGCTAAGACATTGGCTGGAAATGTAATA  
GCTGACCTATCTGATTCTTCTGCTGATTCTGAAAATTTAAGTCCAGATATAAAGAAACTACTGAGGAAATGGAA  
TACAACATCCTCGTAACTTTTTTAAACCATGGGCTACTCCCAAGAAATGTTGAAAAGGTCATTAAGGTGTAT  
GGACCATCTACTGAACCATTATTGCTCTTAGAGGAAATTTGAAAAAGAAATAAAGATTCCAAGAAAGACAGAGAA  
TTTTCAGCTGGTACAGTGTATCCAGAGACCAACAAACCAAAAAATAAAGGTGTTTATAGCAGCACAAATGAGCTT  
ACAACCTGATTCCACTCCAAAGAAAACACAGGCTCACACACAGCAAAATATGGTAGAAAAATTTTCTCAGTTACCA  
TTCAAAGTGGAAGCTAAACCATGTACCTCAAATTTAGTAATTAATACTTTTCAAGACAGTGCCAATAGAACAGAAA  
CATGAAGTCTGGGGTTCAAACCAGAACTACATTTGTAACACAGACCCTGAAACTGATGGCCTTTTACCTTCTGTT  
GCCTCTCCAAGTCCCAAGAAAGTCAATTTTGTGTTTCAAGGGGAGCTTCAAGTCACCAGCCCAGAGTTCCACTTTTT  
CCTGAAAAATGGTTTACACCAGCAGCCAGAACCTTGCTTCCAAATAATATGAAATCTGCCTGTGAAAAACGTTTA  
GGATGTTGTAGTTCTCCTCATTCTAAGCCAAATTTGCTCAACCTTTTCTCCACCAATGCCACTGCCCCAGCTGTTA  
CCTTCGGTTACTGATGCAAGGTCGGCAGGACCTTCTGATCATATTGATTCTCAGTTACTGGGGTTCAAAGGTTT  
CGAGATACTCTAAAAATACCCTACAAGCTGGAATTAAAAAATGAACCAGGGAGAACGGATTTGAAACACATTGTT  
ATAGATGGGAGCAATGTTGCAATTACCCATGGTCTGAAAAAGTTCTTTTCTTGTGCTGGAATTGCAATTGCAGTT  
GAATATTTTTTGAAGCTTGGCAACAGAAACATCACTGTATTTGTCCCTCAGTGGAGAACAAGGCGTGATCCTAAT  
GTCACAGAACAGCACTTCTTAACCCAGCTCCAGGAGCTCGGAATATTATCTTTAACTCCTGCCCGGATGGTCTTT  
GGAGAAAAGAAATTGCTTCTCATGATGACAGGTTTCTACTACACTTAGCGGACAAAACCTGGTGGCATAATTGTGACA  
AATGATAATTTCAAGAGAATTTGTGAATGAGTCAGTCTCTTGAGAGAAATTATTACAAAAGGCTGCTGCAGTAC  
ACGTTCTGTTGGGGACATATTTATGGTTCCCGATGATCCTCTGGGAAGAAAGTGGACCTCGATTAGAGGAGTTTCTT  
CAGAAGGAAGTCTGTCTTAGAGATATGCAGCCCCCTACTCAGTGCCCTGCCAAATGTGGGCATGTTTGACCCCAGC  
TTCAGAGTCCCTGGCACCCAGGCAGCCAGCACCAGCCACCAGCCTCCGACCCGGATTACAGGGAGCCCCCTTCAAGC  
CACTGGCTCCCTCAGCAGCCCCACTTCCCCTGCTGCCAGCCCTCCCCAGTCTCCAGCAGAACCTGCCCATGCCA  
GCTCAGAGATCTTCTGCAGAAACCAACGAGCTGAGGGAAGCCCTTCTGAAGATCTTCCCTGACTCAGAGCAAAGA  
CTGAAAATAGACCAGATCTTGGTGGCCCAACCATATGAAAGATCTAAATGCGCTTTCTGCCATGGTGTGGAT  
**TGA**AGATTGTGCTGAGCGCTGAGCTTGCCTCAGGGCTGGCTGATCAAACTCAAGCTCACACCTGTACCTGATGG  
GAATGAACATAATGTGAAGAACTTATTTCCAGTGTAACGCAGTTGTACAGAAAAAAATGTTTTGGGTATAA  
ATCTGGGTTTTCAAACCCAGCTTTTTTCTATATATAAATTATGCTGCTATTACAGATTTAACATTTTCTGTATAA  
GGAAAGTCTACATTTTCTGCCTGTTTCAAGCTGTTTAAATAGCAGTTACTCTTGAGTGTATTTACCTTTTTATGTT  
TTTTAACTATTTTCTTAAAGCCGAAAATATTGACAAATGGATATGGTTAGCCTTTATAAATAAATAAAAAAA  
AAGTGTGCTTTCTTAAGG

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**FIGURE 8**

MAARAVLDEFTAPAEKAELLEQSRGRIEGLFGVSLAVLGALGAEELPARIWLQLCGAQEAESAKEYIKGICEP  
ELEERECYPKDMHCIFVGAESLFLKSLIQDTCADLCILDIGLLGIRGSAEAVVMARSHIQQFVKLFENKENLPSS  
QKSEVKKREFKQFVEAHADNYTMDLLILPTSLKKELLTTLTQGEENLFETGDDEVIEMRDSQQTEFTQNAATGLNI  
SRDETVLQEEARNKAGTPVSELTQMDTVLSSSPDVLFDPIINGLTPDEEALSNERICQKRRFSDSEERHTKKQFS  
LENVQEGEILHDAKTLAGNVIADLSDSSADSENLSPIKETTEEMEYNILVNFFKTMGYSQEIVEKVIKVGYPST  
EPLLLLEEIEKENKRFQEDREFSAGTVYPETNKTKNKGVSSTNELTTDSTPKKTAHTQQNMVEKFSQLPFKVE  
AKPCTSNCRINTFRTVPIEQKHEVWGSNQNYICNTDPETDGLSPSVASPSPKEVNFVSRGASSHQPRVPLFPENG  
LHQQPEPLLPNNMKSACEKRLGCCSSPHSKPNCSTLSPPMPLPQLLP SVTDARSAGPSDHIDSSVTGVQRFRTL  
KIPYKLELKNEPGRITDLKHIVIDGSNVAITHGLKKFFSCRGIAIAVEYFWKLGNRNITVFVPQWRTRRDPNVTEQ  
HFLTQLQELGILSLTPARMVFGERIASSHDDREFLLHLADKTGGIIVTNDNREFVNESVSWREIITKRLLOQYTFVG  
DIFMVPDDPLGRSGPRLEEFQKEVCLRDMQPLLSALPNVGMFDP SFRVPGTQAASTSHQPPTRIQQAPSSHWLP  
QQPHFPLLPALPSLQONLPMFAQRSSAETNELREALLKIFPDSEQRLKIDQILVAHPYMKDLNALSAMVLD

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**FIGURE 9A**

CTCATGCATATGCAGGTGCGCGGGTGACGAATGGGCGAGCGAGCTGTCACTCTCGTTCCGAACCTTGTGGCTGCG  
GTGCCGGGAGCGCGGGCGCGCAGAGCCGAGGCCGGGACCCGCTGCCTTACCGCCGCCCGCTCGCCGCCGGGTG  
GGAGCCGGGCCCGGGCAGCCGGAGCGCGGCCCGCCAGCGAGCCGGAGCTGCCGCCGCCCTTGCACGCCCGCCGCCA  
GGCCCGCGCGCCGCGCGCTGCGCTCGACCCCGCCCGCGCCGCCGCCGCCCTCTGCCGCTGCCGCTGCCCT  
CTGCCGGGCGCTCGGAGGGCGGGCGGGCGCTGGGAGGCCGGCGCGCGCGGCTGGGAGCCGGGCGCGGGCGGGCGG  
CGGGGCCGGGCGGGCGGGTCCGCGGGGCAATGCGGGCGCAGGGCCGGGGGCGCCTTCCCCGGCGGCTGCTGCTGC  
TGCTGGCGCTCTGGGTGCAGGCGGCGCGGCCCATGGGCTATTTTCAGCTGCAGCTGAGCGCGCTGCGGAACGTGA  
ACGGGGAGCTGCTGAGCGGCGCTGCTGTGACGGCGACGGCCGGACAACGCGCGCGGGGGGCTGCGGCCACGACG  
AGTGCACACGTACGTGCGCTGTGCCCTTAAGGAGTACCAGGCCAAGGTGACGCCACGGGGCCCTGCAGCTACG  
GCCACGGCGCCACGCCCGTGTGGGCGGCAACTCCTTCTACCTGCCGCCGGCGGGCGCTGCGGGGGACCGAGCGC  
GGGCGCGGGCCCCGGGCCGGCGGCGACAGGACCCGGGCTCGTCTCATCCCCCTCCAGTTGCGCTGGCCGCGCT  
CCTTTACCTCATCGTGGAGGCTGGGACTGGGACAACGATAACACCCGAATGAGGAGCTGCTGATCGAGCGAG  
TGTCGATGCCGGCATGATCAACCCGGAGGACCGCTGGAAGAGCCTGCACCTCAGCGGCCACGTGGCGCACCTGG  
AGCTGCAGATCCGCGTGCCTGCGACGAGAATACTACAGCGCCACTTGCAACAAGTTCTGCCGGCCCCGCAACG  
ACTTTTTCGGCCACTACCTGCGACCACTACGGCAACAAGGCTGCATGGACGGCTGGATGGGCAAGGAGTGCA  
AGGAAGCTGTGTGTAACAAGGTGTAATTTGCTCCACGGGGGATGCACCGTGCTGGGGAGTGAGGTGCAGCT  
ACGGCTGGCAAGGGAGGTTCTGCGATGAGTGTGTCCCTACCCCGGCTGCGTGATGGCAGTTGTGTGGAGCCCT  
GGCAGTGCAACTGTGAGACCACTGGGGCGGCTGCTCTGTGACAAAGACCTGAACTACTGTGGCAGCCACCACC  
CCTGCACCAACGGAGGCACGTGCATCAACGCCGAGCCTGACCAGTACCGCTGCACCTGCCCTGACGGCTACTCGG  
GCAGGAAGTGTGAGAAGGCTGAGCACGCTGCACCTCCAACCCGTGTGCCAACGGGGGCTCTTGCCATGAGGTGC  
CGTCCGGCTTCGAATGCCACTGCCCATCGGGCTGGAGCGGGCCACCTGTGCCCTTGACATCGATGAGTGTGCTT  
CGAACCCGTGTGCGGCCGGTGGCACCTGTGTGGACCAGGTGGACGGCTTTGAGTGATCTGCCCCGAGCAGTGGG  
TGGGGGCCACCTGCCAGCTGGACGCCAATGAGTGTGAAGGGAAGCCATGCCTTAACGCTTTTTTCTTGAAAAACC  
TGATTGGCGGCTATTACTGTGATTGCATCCCGGGCTGGAAGGGCATCAACTGCCATATCAACGTCAACGACTGTC  
GCGGGCAGTGTGAGCATGGGGGCACCTGCAAGGACCTGGTGAACGGGTACCAGTGTGTGTGCCACGGGGCTTCG  
GAGGCCGGCATTGCGAGCTGGAACGAGACGAGTGTGCCAGCAGCCCCTGCCACAGCGGCGGCCTCTGCGAGGACC  
TGGCCGACGGCTTCCACTGCCACTGCCCCAGGGCTTCTCCGGGCCCTCTCTGTGAGGTGGATGTGACCTTTGTG  
AGCCAAGCCCCCTGCCGGAACGGCGCTCGCTGCTATAACCTGGAGGGTGACTATTACTGCGCTGCCCTGATGACT  
TTGGTGGCAAGAACTGCTCCGTGCCCGCGAGCCGTGCCCTGGCGGGGCTGCAGAGTGATCGATGGCTGCGGGT  
CAGACGCGGGGCTGGGATGCCCTGGCACAGCAGCCTCCGGCGTGTGTGGCCCCATGGACGCTGCGTCAGCCAGC  
CAGGGGGCAACTTTTCTGCTGCTGTGACAGTGGCTTTACTGGCACCTACTGCCATGAGAACATTGACGACTGCC  
TGGGCCAGCCCTGCCGCAATGGGGGCACATGCATCGATGAGGTGGACGCTTCCGCTGCTTCTGCCCCAGCGGCT  
GGGAGGGCGAGCTCTGCGACACCAATCCCAACGACTGCCTTCCCGATCCCTGCCACAGCCGCGGCCGCTGCTACG  
ACCTGGTCAATGACTTCTACTGTGCTGCGACGAGCGCTGGAAGGGCAAGACCTGCCACTCACGCGAGTTCCAGT  
GCGATGCCTACACCTGCAGCAACGGTGGCACCTGCTACGACAGCGCGACACCTTCCGCTGCGCTGCCCCCCG  
GCTGGAAGGGCAGCACCTGCGCCGTGCCAAGAAGCAGCTGCCTGCCCAACCCCTGTGTGAATGGTGGCACCT  
GCGTGGGCAGCGGGGCTCCTTCTCCTGCATCTGCCGGGACGGCTGGGAGGGTCGTACTTGCACTCACAAATACCA  
ACGACTGCAACCCCTTGCTTACAAATGGTGGCATCTGTGTTGACGGCGTCAACTGGTTCCGCTGCGAGTGTG  
CACCTGGCTTCGCGGGGCTGACTGCCGCATCAACATCGACGAGTGCCAGTCTCGCCCTGTGCCTACGGGGCCA  
CGTGTGTGGATGAGATCAACGGGTATCGCTGTAGCTGCCCACCCGGCCGAGCCGGCCCCCGGTGCCAGGAAGTGA  
TCGGGTTTCGGGAGATCCTGCTGGTCCCGGGGCACTCCGTTCCACACGGAAGCTCCTGGGTGGAAGACTGCAACA  
GCTGCCGCTGCTGGATGGCCGCCGTGACTGCAGCAAGGTGTGGTGGGATGGAAGCCTTGTCTGCTGGCCGGCC  
AGCCCGAGGCCCTGAGCGCCAGTGCCCACTGGGGCAAAGGTGCCTGGAGAAGGCCCCAGGCCAGTGTCTGCGAC  
CACCTGTGAGGCTGGGGGGAGTGGCGCGCAGAAGAGCCACCGAGCACCCCTGCCCTGCCACGCTCCGGCCACC  
TGGACAATAACTGTGCCCGCCTCACCTTGCATTTCAACCGTGACACGCTGCCCCAGGGCACCGGTGGGCGCCA  
TTTGCTCCGGGATCCGCTCCCTGCCAGCCACAAGGGCTGTGGCACGGGACCGCCTGCTGGTGTGCTTTGCGACC  
GGGCGTCTCGGGGGCCAGTGCCGTGGAGGTGGCCGTGTCTTTCAGCCCTGCCAGGGACCTGCCTGACAGCAGCC  
TGATCCAGGGCGCGGCCACGCCATCGTGGCCGCCATCACCCAGCGGGGGAACAGCTACTGCTCCTGGCTGTCA

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**FIGURE 9B**

CCGAGGTCAAGGTGGAGACGGTTGTTACGGGCGGCTCTTCCACAGGTCTGCTGGTGCCTGTGCTGTGTGGTGCCT  
TCAGCGTGCTGTGGCTGGCGTGCGTGGTCCCTGTGCGTGTGGTGGACACGCAAGCGCAGGAAAGAGCGGGAGAGGA  
GCCGGCTGCCGCGGGAGGAGAGCGCCAACAACCAAGTGGGCCCCGCTCAACCCCATCCGCAACCCCATCGAGCGGC  
CGGGGGGCCACAAGGACGTGCTCTACCAGTGCAAGAACTTACGCCGCCGCCGCGCAGGGCGGACGAGGCGCTGC  
CCGGGCCGGCCGGCCACGCGGCCGTACGGGAGGATGAGGAGGACGAGGATCTGGGCCGCGGTGAGGAGGACTCCC  
TGGAGGCGGAGAAGTTCTCTCACACAAATTCACCAAAGATCCTGGCCGCTCGCCGGGGAGGCCGGCCCACTGGG  
CCTCAGGCCCCAAAGTGGACAACCGCGCGGTACAGGAGCATCAATGAGGCCCGCTACGCCGGCAAGGAGTAGGGGC  
GGCTGCCAGCTGGGCCGGGACCCAGGGCCCTCGGTGGGAGCCATGCCGTCTGCCGGACCCGGAGGCCGAGGCCAT  
GTGCATAGTTTCTTTATTTTGTGTAAAAAACCACCAAAAACAAAAACCAAATGTTTATTTTCTACGTTTCTTTA  
ACCTTGATATAAATTATTCAGTAACTGTCAGGCTGAAAACAATGGAGTATTCTCGGATAGTTGCTATTTTTGTAAA  
GTTTCCGTGCGTGGCACTCGCTGTATGAAAGGAGAGAGCAAAGGGTGTCTGCGTCGTCACCAAATCGTAGCGTTT  
GTTACCAGAGGTTGTGCACTGTTTACAGAATCTTCCTTTTATTCTCACTCGGGTTTCTCTGTGGCTCCAGGCCA  
AAGTGCCGGTGAGACCCATGGCTGTGTGGTGTGGCCCATGGCTGTTGGTGGGACCCGTGGCTGATGGTGTGGCC  
TGTGGCTGTGCGTGGGACTCGTGGCTGTCAATGGGACCTGTGGCTGTGCGTGGGACCTACGGTGGTGGTGGGAC  
CCTGGTTATTGATGTGGCCCTGGCTGCCGGCACGGCCCGTGGCTGTTGACGCACCTGTGGTTGTTAGTGGGGCCT  
GAGGTATCGGCGTGGCCCAAGGCCGGCAGGTCAACCTCGCGCTTGCTGGCCAGTCCACCCTGCCTGCCGTCTGT  
GCTTCCTCCTGCCCAGAACGCCCGCTCCAGCGATCTCTCCACTGTGCTTTCAGAAGTGGCCTTCCTGCTGCGCAG  
TTCTCCCATCCTGGGACGGCGGCAGTATTGAAGCTCGTGACAAGTGCTTCACACAGACCCCTCGCAACTGTCCA  
CGCGTGCCGTGGCACAGGCGCTGCCACCTGCCGGCCCCGGCCGCCCTCCTCGTGAAAGTGCATTTTTGTAAA  
TGTGTACATATTAAAGGAAGCACTCTGTATATTTGATTGAATAATGCCACCA

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**FIGURE 10**

MRAQGRGRLPRRLLLLLLALWVQAARPMGYFELQLSALRNVNGELLSGACCDGDGRITTRAGGCGHDECPTYVRVCL  
KEYQAKVTPTGPCSYGHGATPVLGGNSFYLPAPAGAAGDRARARARAGGDQDPGLVVIPFQFAWPRSFTLIVEAWD  
WDNDTTPNEELLIERVSHAGMINPEDRWKSLHFSGHVAHLELQIRVRCDENYYSATCNKFCRPRNDFFGHYTCDQ  
YGNKACMDGWMGKECKEAVCKQGCNLLHGGCTVPGEGRCSYGWQGRFCDECVPYPGCVHGSCVEPWQCNCETNWG  
GLLCDKDLNYCGSHHPCTNGGTCINAEPDQYRCTCPDGYSGRNCEKAEHACTSNPCANGGSCHEVP SGFECHCPS  
GWSGPTCALDIDECASNPCAAGGTCVDQVDGFECICPEQWVGATCQLDANECEGKPCLNAFSCKNLIGGYCDCI  
PGWKGINCHINVNDCRGQCQHGGTCKDLVNGYQCVCPRGFGGRHCELERDECASSPCHSGGLCEDLADGFHCHCP  
QGFSGPLCEVDVDLCEPSPCRNGARCYNLEGDYCACPDDFGGKNCSVPREPCPGGACRVIDGCGSDAGPGMPGT  
AASGVCGPHGRCVSQPGGNFSCICDSGFTGTYPHENIDDCLGQPCRNGGTCIDEVDAFRFCFPCPSGWEDELCDTNP  
NDCLPDPCHSRGRCYDLVNDFYCACDDGWKGKTCHSREFQCDAYTCSNGGTCYDSGDTFRACAPPGWKSTCAVA  
KNSSCLPNPCVNGGTCVGSGASFSCICRDGWEGRTCTHNTNDCNPLPCYNGGICVDGVNWFRCCEAPGFAGPDCR  
INIDECQSSPCAYGATCVDENGYRCSCPPGRAGPRCQEVIGFGRSCWSRGTPFPHGSSWVEDCNSCRCLDGRRD  
CSKVWCWKPCLLAGQPEALSAQCPLGQRCLEKAPGQCLRPPCEAWGECGAEPPSTPCLPRSGHLDNNCARLTL  
HFNRDHVPQGTTVGAICSGIRSLPATRAVARDRLLVLLCDRASSGASAVEVAVSFSPARDLPDSSLIQGAHAIV  
AAITQRGNSSLLLAVTEVKVETVVTGGSSTGLLVPLCGAFSVLWLACVVLCVWWTRKRRKERERSRLPREESAN  
NQWAPLNP IIRNPIERPGGHKDVLYQCKNFTPPPRRADEALPGPAGHAAREDEDEDLGRGEEDSLEAEKFLSHK  
FTKDPGRSPGRPAHWASGPKVDNRAVRSINEARYAGKE

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**FIGURE 11**

GGCACGAGGCCTGACATGGAGCCTGCCAGCTCCGTCAGCCCTGACTCGGCCCGGAGCTGAGCTCCCCACCTGCCG  
GTAGCCCAGGAGATGGAGCAGCCCAGCCCACGTGCCCGCCTTCCGCCCTGACTTCACTTGATAACAACTAGA  
AACTGAAACAGGGTGGGATGCCGATGCCGGCTTGGAGTTAGAGATGAGTCACCGCTGAGAGCAGCTGCAGTAGC  
TGAGCAGTGGCAGCAGAGAGGCAGACGTGAGCTGAGGGCGCAGAGGCAGGCAGCATCTCTGAGGGTCCCCAAGGA  
GCATGGCTGGGAGCCGTGAGGTGGTGGCCATGGACTGCGAGATGGTGGGGCTGGGGCCCCACCGGGAGAGTGGCC  
TGGCTCGTTGCAGCCTCGTGAACGTCCACGGTGCTGTGCTGTACGACAAGTTCATCCGGCCTGAGGGAGAGATCA  
CCGATTACAGAACCCGGGTACGCGGGGTCACCCCTCAGCACATGGTGGGGGCCACACCATTGCGGTGGCCAGGC  
TAGAGATCCTGCAGCTCCTGAAAGGCAAGCTGGTGGTGGGTCATGACCTGAAGCACGACTTCCAGGCACTGAAAG  
AGGACATGAGCGGCTACACAATCTACGACACGTCCACTGACAGGCTGTTGTGGCGTGAGGCCAAGCTGGACCACT  
GCAGGCGTGTCTCCCTGCGGGTGCTGAGTGAGCGCCTCCTGCACAAGAGCATCCAGAACAGCCTGCTTGGACACA  
GCTCGGTGGAAGATGCGAGGGCAACGATGGAGCTCTATCAAATCTCCCAGAGAATCCGAGCCCCGCCGAGGGCTGC  
CCCGCCTGGCTGTGTGACACTGAAGCCCCATCCAGCCCGTTCCGCAGGGACTAGAGGCTTTTCGGCTTTTTGGGAC  
AGCAACTACCTTGCTTTTGAAAATACATTTTAAATAGTAAAGTGGCTCTATATTTTCTCTACGCAAAAAAAAAA  
AAAAAAA



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**FIGURE 12**

MAGSREVVAMDCEMVGLGPHRESGLARCSLVNVHGAVLYDKFIRPEGEITDYRTRVSGVTPQHMGATPFAVARL  
EILQLLKGKLVVGHDLKHDFQALKEDMSGYTIYDTSTDRLWLWREAKLDHCRRVSLRVLSEKLLHKSIGNSLLGHS  
SVEDARATMELYQISQRIRARRGLPRLAVSD

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**FIGURE 13**

CTCAGCTTCTTTGCGTAACCAATACTGGAAGGCATTTAAAGGACCTCTGCCGCCTCAGACCTTGCACTTAACCTCC  
GCCCTGACCCACCCCTTCCCGATGCAGTCCCTGATGCAGGCTCCCCTCCTGATCGCCCTGGGCTTGCTTCTCGCGA  
CCCCTGCGCAAGCCCACCTGAAAAAGCCATCCCAGCTCAGTAGCTTTTCTGGGATAACTGTGATGAAGGGAAGG  
ACCTTGCGGTGATCAGAAGCCTGACTCTGGAGCCTGACCCATCGTCGTTTCTGGAAATGTGACCTCAGTGTCG  
TGGGCAGCACCAGTGTCCCCCTGAGTTCTCTCTGAAGGTGGATTTAGTTTTGGAGAAGGAGGTGGCTGGCCTCT  
GGATCAAGATCCCATGCACAGACTACATTGGCAGCTGTACCTTTGAACACTTCTGTGATGTGCTTGACATGTTAA  
TTCCTACTGGGGAGCCCTGCCCAGAGCCCTGCGTACCTATGGGCTTCCTTGCCACTGTCCCTTCAAAGAAGGAA  
CCTACTACTGCCCAAGAGCGAATTCGTTGTGCCTGACCTGGAGCTGCCCAGTTGGCTCACCACCGGGAAGTACC  
GCATAGAGAGCGTCTTGAGCAGCAGTGGGAAGCGTCTGGGCTGCATCAAGATCGCTGCCTCTCTAAAGGGCATAT  
AGCATGGCATCTGCCACAGCAGAATGGAGCGGTGTGAGGAAGGTCCCTTTTCTCTGTTTTGTGTTTGCCAAGGC  
CAAACCTCCACTCTCTGCCCCCTTTAATCCCCTTTCTACAGTGAGTCCACTACCCTCACTGAAAATCATTTTGT  
ACCACTTACATTTTAGGCTGGGGCAAGCAGCCCTGACCTAAGGGAGAATGAGTTGGACAGTTCTTGATAGCCCAG  
GGCATCTGCTGGGCTGACCACGTTACTCATCCCCGTTAACATTCTCTCTAAAGAGCCTCGTTCATTTCCAAAGCA  
GTTAAGGAATGGGAACAGAGTGTTTTAGGACCTGAAGAATCTTTATGACTCTCTCTCTTTCTCTCTTTTTTTTTT  
TGTCATAAGTTAAAAGCGAAGTGAGAGTATTAACGTTTTTGTCTCTCTCCGGCCCCCTGTTACAATGAAGGGC  
AAAAGTATTTGCTCTTAGTCTATTCTCCCTTAACCTCTGTGACTAATTTTTATTTCTTTCTAGATTTGCCCAA  
TTAATACTAGGGTGCAGTGTATCCTGGAGAGGTAGGGTGTGTGGGGGAGGAATCCCTTGGGGGAGATATTAGGAG  
TGCTCTGTTGTTTACAACTCAGGTACCCGAGGGCCTAGCAAGAGACTTAAATGACTGATAAGAACCGTGAGAA  
ACATGTTGCTTCCAGGCTTGATTTGATTTTTCGCTTTTTTTTTTTGGGACGGAGTCTCGCTTTGTCACCAGGCT  
GGAGTGCAGTGGTGCAATCTCACCTCACTGCAACCTCCGCCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTC  
CCAAGTAGCTTGGACTACAGGCCCTGCCACCACGCCCGGCTAATTTGTGTATTTTAGTAGAGATGGGGTTTCAC  
CATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCGTGATCCGTCCACCTTGGCCTTGCAAAGCGCTGGATTACA  
GGCATGAGCCACTACACCCAGCCGATTTTCTTTTGGATTAAAGATGCTATTACAATGTAAATATTTCTTACAC  
AGAAAGTCACAGCACATGTGCCCATTGATACAAGGCTGCTGAGGCCTGGTCTCCAGTTGGAAATATAATTAAGGG  
TGGCAGGGACTGGAGTCAGTTGGAGAGTGATAGCCAGTCTGTGAAGACAAGTCCAGATACTGGCAATACTCCA  
GCCTGGTGACAGAGTGAGACTCTGTCTCAAAAAAAAAAGTTTCAATGTTTACTCCTAGAGAGGCCAAAAATCCAGA  
TTTGTATATGAAATCTTACCATTTTAAAAGATTGGCAGCTAATTATTTTTTTTAAAAGCTGTGCAGTGTGATGTG  
TCCCAAACGGACTGGCTCATGGGTGGCCACGTCACAACCTCTGATCTCAGACCGTGATGCCTTGTCCTCTTAAG  
ACAACCTCTGTGGCACCGTTTTCTCCCTCCACAGGGCCAAAGCCATAGTGTCCGGTCCCAAGGACAAGGCTCTTCC  
AGTGCTAGGAGAGGTATGAGCAGCCTCTCACCTGTGAGCTGTGGGGATCACAAGGCTGCCTGCCTCAGTCTTGGA  
GTCCTGTTGGGTGAATGAGGCAGATGGGAAAGAGCCTCACCAGCAGCTGCTTTTGGAGCAGGGGTCCAAGGAAGA  
GAGGGTGGCCTCGACATCAAACCTGCCTGGATTTTCTACCACCCTGTTACATCATAACAACCTTCTGAAACACACA  
CCAGCCCTGAGTTCTGGGCTCATTTGAAGCCTGGAATAGCAATAAATCTTTTTAACTTGCAAAAAAAAAAAAAAA  
AAA

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**FIGURE 14**

MQSLMQAPLLIALGLLLATPAQAHKKPSQLSSFSWDNCDEGKDPVIRSLTLEPDPIVVPGNVTL SVVGSTSV  
LSSPLKVDLVLEKEVAGLWIKIPCTDYIGSCTFEHFCVDLMDLIPTGEPCEPLRTYGLPCHCPFKEGTYS  
LPKS  
EFVVPDLELPSWLTGTGNYRIESVLSSSGKRLGCIKIAASLKI

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**FIGURE 15A**

CGCTTCCCTCACTGGGTCCTGCGTCCTTGGGCAGGCGATGCCCTGCGGGGAGGGGCTGGTCCATCCCCGGCCAG  
 CCACGGACCCACGCATGGACCCAGCGACCCACGGACCTGCTTACCTGGGCGGCGCGGGTGGCATGCGGCCACA  
 CGGAAGGGGCGCGCTGGGCTGCTGCGGCCTCTGCAGCTTCTACACCTGCCACGGGGCGGCCGAGATGAAATCAT  
 GCACCAGGACATCGTCCCGCTCTGTGCTGCCGACATCCAGGACCAGCTAAAGAAGCGCTTTGCTTACCTGTCCGG  
 TGGGCGGGGGCAGGACGGAAGCCCGTTATCACCTTCCCTGACTACCCGGCCTTCAGCGAGATTCCGGACAAGGA  
 GTTCCAGAATGTCATGACCTACCTACCAGCATCCCCAGCCTGCAGGACGCTGGCATCGGATTATCCTGGTGAT  
 AGACCGGGCAGGGACAAATGGACCTCCGTGAAGGCGTCCGTCTGCGCATCGCAGCATCTTTCCCGGCAAACCT  
 GCAGCTCGTCCCTGCTGCTTCGCCCCAGGGTTTTTTTCAAAGGACTCTCTCCGACATCGCTTTCAAATTCAATAG  
 AGATGACTTTAAGATGAAGGTGCCGTCATAATGCTGAGCTCCGTACCAGACTTACACGGTTACATCGATAAGTC  
 GCAGCTGACCGAGGACCTGGGTGGGACCCTGGACTACTGCCACTCCCGGTGGCTGTGCCAGCGCACGGCCATCGA  
 AAGTTTCGCCCTCATGGTGAAGCAGACGGCTCAGATGCTGCAGTCCTTCGGGACCGAGCTGGCTGAAACAGAGCT  
 GCCCAATGACGTCCAGTCGACAAGCTCAGTGCTGTGTGCGCACACAGAGAAGAAGGACAAGGCGAAGGAGGATTT  
 GAGGCTGGCACTGAAAGAGGGGACAGTGTCTGGAGAGCCTCAGGGAGCTGCAGGCTGAGGGCTCAGAGCCAG  
 TGTGAACCAGGACCGCTTGACAACCAGGCCACCGTGCAGAGGCTCCTGGCCCCAGCTGAACGAAACCGAGGCTGC  
 CTTTCGATGAGTTCTGGGCAAAGCATCAGCAGAACTGGAGCAGTGTCTGCAGCTCCGGCCTTTGAGCAGGGCTT  
 CCGGGAGGTCAAAGCCATCTTGGACGCAGCGTCCCAGAAGATAGCAACCTTCACAGACATCGGCAACAGCCTGGC  
 GCATGTGGAGCACCTGCTGAGGGACCTGGCCAGCTTCGAGGAGAAATCAGGCGTGGCCGTGGAGAGGGCCCGGGC  
 CCTGTCTCTGGACGGCGAGCAGCTCATTGGGAACAAGCACTACGCGGTAGACTCCATCCGCCCCAAAGTGCCAGGA  
 GCTCCGGCACCTCTGTGACCAGTTCTCTGCGGAGATCGCAAGGAGGAGGGGGCTGCTCAGCAAGTCCCTGGAGCT  
 GCACCGCCGCTGGAGACGTCCATGAAGTGGTGTGATGAAGGGATTTACCTGCTGGCCTCACAACCTGTGGACAA  
 GTGCCAGTCCCAGGACGGCGCGGAGGCTGCCCTCCAGGAAATCGAGAAGTTTTTGGAGACCGGTGCGGAAATAA  
 GATCCAGGAGCTCAACGCGATTTTACAAGGAATACGAATCCATCCTCAACCAAGATCTCATGGAGCACGTGCGAAA  
 GGTCTTCCAGAAGCAGGCAAGCATGGAGGAGGTGTTCCACCGCAGGCAGGCCAGCCTGAAGAAGCTGGCGGCCAG  
 GCAGACGCGGCCCCGTGCAGCCGGTGGCCCCCAGACCCGAGGCACTGGCAAAGTCGCCCTGCCCTCCCCAGGCAT  
 TCGGCGAGGCTCTGAGAACTCCAGCTCCGAGGGCGGTGCGCTCCGGAGAGGGGCCCTACCGGAGGGCCAAAGAGTGA  
 GATGAGTGAGAGCCGGCAGGGCCGCGGCTCAGCGGGGGAGGAGGAGGAAAGCCTGGCCATCCTGCGCAGGCACGT  
 GATGAGCGAGCTCCTGGACACAGAACGGGCCTACGTGGAGGAGCTGCTGTGCGTCTGGAGGGCTACGCCGCGGA  
 GATGGATAACCCACTGATGGCTCACCTCCTGTCAACAGGCCTTCACAACAAGAAGGATGTTTTGTTTGAAACAT  
 GGAGGAAATCTATCACTTCCACAACAGGATATTCTCAGGGAGCTGGAAAATCACTGACTGCCCAGAACTGGT  
 TGGAAGATGCTTTCTGGAGAGGATGGAAGATTTCCAGATCTATGAGAAGTACTGTGAGAACAAGCCCCGCTCTGA  
 GAGCCTGTGGAGACAGTGCTCCGACTGCCCCGTTTTTCCAGGAATGCCAGAGAAAGCTGGACCACAAGCTGAGCCT  
 GGACTCCTACCTGCTGAAGCCAGTGCAAGGATCACCAAGTACCAGCTGCTGCTCAAGGAAATGCTGAAATACAG  
 CAGGAACCTGCGAGGGGGCTGAGGACCTGCAGGAGGCGCTGAGCTCCATCCTGGGCATCCTGAAGGCCGTGAACGA  
 CTCCATGCACCTCATCGTATCACCGGCTATGACGGGAATCTCGGCGACCTGGGCAAGCTGCTGATGCAGGGCTC  
 ATTCAGCGTCTGGACCGACCACAAGAGGGGCCACACCAAGGTGAAGGAGCTGGCCAGGTTCAAGCCCATGCAGCG  
 GCACCTGTTTCTGACGAGAAAGGCAGTGCTCTTCTGCAAGAAGAGGGAGGAGAATGGGGAGGGGTATGAGAAAGC  
 TCCCTCCTACAGCTACAAGCAGTCCCTTAAACATGGCTGCCGTTGGCATTACGGAGAACGTGAAGGGAGATGCTAA  
 GAAGTTGAGATCTGGTACAACGCGCGCGAGGAGGTCTACATCGTCCAGGCGCCAACTCCTGAGATTAAAGCCGC  
 GTGGGTGAATGAAATTCGGAAAGTGCTGACCAGCCAGCTGCAGGCTTGTTAGAGAAGCCAGCCAGCACCGGGCGCT  
 GGAGCAGTCACAGAGCCTGCCCCTGCCGGCCCCGACCAGCACAGTCCCTCAAGAGGAACTCAAGGAACATCAA  
 GAAGCTGGAAGAAAGGAAACAGACCCCTAAGCCTGGAGGGATACGTGAGCTCAGCGCCACTGACAAAGCCCCC  
 CGAAAAGGGCAAAGGTTGGAGCAAACGTCCCACTCACTGGAGGCACCTGAGGACGACGGGGGCTGGTCAAGTGC  
 AGAGGAGCAGATTAACTCGTCCGACGCAGAGGAGGACGGCGGGTTGGGCCCCAAGAAGCTGGTTCCAGGTAAATA  
 CACGGTCGTGGCGGACCACGAGAAGGGAGGCCCCGATGCGCTGCGCGTGAGGAGCGGGGACGTGGTGGAGCTGGT  
 GCAGGAGGGCGACGAGGGCCTCTGGTAAGACCCCGCGCTCAGCCCCGAGCTGCCCCGACGTGGCTGCCGCTGAC  
 CCTCGCCCCCTTGCAAGTACGTGAGGGACCCGACCCTGGCAAGGAGGGCTGGGTGCCGGCCAGCAGCCTGTCCGT  
 CCGGCTCGGCCCCGTCCGGCTCGGCCCAGTGCCTGAGCAGCTCAGGTAAGGCCACGTGCCCCGAGCCACCCGCTG  
 ACGCTGCCAAGGGCCCCGGGCGAGGAAGCTGCCCCGTGTGTGCCCGGCAGAGCCGACGCCGAAGCCCGTCCCCGCC

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**FIGURE 15B**

TGATCTCCCCGCAGAGTCGAGCCCGGGGTCGGCCGTGCTGAGCAACTCGTCCAGCTGCAGCGAGGGCGGCCAGGC  
CCCCTTCTCCGACCTGCAGGGGTAGCGCGGCCTCGGCGCCGGAGACCCGCGCGCTGTCTGGGGCTGCGGTGGCGT  
GGGGAGGGCGCGGCCCCCGGACGCCCCGAGGAAGGGGCACCTCACC GCCCCGACCCAGAGCGCCTGGCCGTGCGG  
GCTGCAGAGGACCCCTCCGGGGCAGAGGCAGGTTCACGGAAGACCCCGGCCCGCTGGGGCTTCCCCGGAGACTC  
CAGAGCCCACAGAGGAGGGGCCGAGGGAACAGCCCCGGGCGGCAGGCGCCGGGCAGCGGCATCTCGTCTGGCT  
CCACCGTGCTGCTTCTGCCTCCGGACGGTGCTTTCAGGGGACGCGCGGACCGTGGTGGAGCTGCTTCCGGAGAAG  
TGGAGGATCCTCTGGCCAACGGCCTGAGGAGAGCGGGGCACGGGGTCTCTTTAGCTTTTACAAGTTTATAGGATTT  
TTTCAAGCAGGGATCAATCCCGTGGCCATTTTTTGTGGTACTTTGGCCCTCAATTCCTTACCAGGAATCACTGTGT  
TTACATGAAATGACAATTTGATACTGTATTTGATAGAAAATAATTTTTTGTACCGGGGTTTACATAGAAAGCAC  
GTTGTTTATACCACTAAGTGACTTTGGCGGGGCTCTCCCATGGAAACGGATGGCACTCCCTGAAGCTCCCTGGTC  
ACAGGTGGATGAAAACGTGTCCGTGGGTGACATCAGGTGGTGTCTCCACCACCAAAGCAGTTAGAAGCCAAGGA  
GATTCCTTTATCTACCTAGGGTTTCAATTTTCAAAAAGAAAATTTAAACTATAATTTAAACAATTAACGTTCTTTTCT  
ACAAAAAAAATGCAGGGACTTGATTTTTTTTAAAGAGCTTCACTGAATTAGGATATTTTTATTGCTTTTAAAGAA  
AATACAAAGTTGCAGTTTCTGCAGGGTGTGGCGTGGACCAGTGCTGCCGACCATAGCTCAGAGAGCCCTGCCCT  
GCCTCACTGCACTGCAGCCTCCTCGGAGGCCGACCTCCACTCCACTCCCCACGCGCCCCCTGCCTCCCACCCAG  
GTCCACCTGCCACCTGGTGACCACCTTGAGTACAGAAGTGAAAGTGGGGAGAGTATTTTATTCAAGTCACAGCAG  
AACTGGAAAAAACTCTTCTGTTTTACCAACTTCTTGTTTTCAGAAACATATTCTGTTCAAAACTTTTGAAGCC  
CTTTCGGTGTCTAGTCTGCAGATGTTTTTGTATGTGTGCACCTCTGACCATGTGTGTACATATGTGTCTTGCTGG  
AAAGGACATATTCGCTGTCCCGTGCTGCTGGGAGGGCCGCTCACAGCCTCACGGTTCCAGCCCCAGCACAGT  
GGAGGCAGGCGTGGCTGCATTCCCTCACGCTACCTCCAGCGGCTTGTTAGCCGTCACTGGCCAGACCTCCAGG  
GTGCGGAATCAAATAGGAAGCATGCAGAGACTCGGCAGCTTTTCCTCTGATGTGTAAGTTATTTGGAACGCGTGC  
TGTGTCCCGCATGTCCCTGATGTACTGTGCAGGCGCGGTGCCTCCGTCTCGTCGCACAGCTGCGCGCCCTTGTG  
TGACCTCCCCATAAAGGCACTTTACAGCTTCATGTTTCATCCACTGTCACTTTTTTTTAACTGCTGATGTAAAT  
GGAATTTTAAAGCAGAGTTCTTTATTGTATGGATGACGTTGAATAAATATCAGCAACTCCTGCC

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**FIGURE 16**

ASLTGSCVLGQAMPLRGGAGPSPASHGPTHGSPDPRTCLPGRGAGGMRPHGRGALGCCGLCSFYTCHGAAGDEIM  
HQDIVPLCAADIQDQLKKRFAYLSGGRGQDGSPVITFPDYPAFSEIPDKEFQNVMTYLTSSIPSLQDAGIGFILVI  
DRRRDKWTSVKASVLRIAASF PANLQLVLVLRPTGFFQRTLS DIAFKFNRRDDFKMKVPVIMLSSVPDLHGYIDKS  
QLTEDLGGTLDYCHSRWLCQRTAIESFALMVKQTAQMLQSFGTELAETELPNDVQSTSSVLC ATEKKDKAKEDL  
RLALKEGHSVLESRLRELQAEGSEPSVNQDQLDNQATVQRLLAQLNETEAADEFWAKHQQKLEQCLQLRHFEQGF  
REVKAILDAASQKIATFTDIGNSLAHVEHLLRDLASFEEKSGVAVERARALSLDGEQLIGNKH YAVDSIRPKCQE  
LRHLCDQFSAE IARRRGLLSKSLELHRRLETS MKWCDEGIYLLASQPVDKCQSQDGAEALQEIEKFLETGAENK  
IQELNAIYKEYESILNQDLMEHVRKV FQKQASMEEVFHRRQASLKKLAARQTRPVQPVAPRPEALAKSPCPSPGI  
RRGSENSSSEGGALRRGPYRRAKSEMSESRQGRGSAGEEEESLAILRRHVMSELLDTERAYVEELL CVLEGYAAE  
MDNPLMAHLLSTGLHNKKDVLFGNMEEIYHFHNRI FLRELENYTDCPELVGRCFLERMEDFQIYEK YCQNKPRSE  
SLWRQCSDCPFFQECQRKLDHKLSLDSYLLKP VQRITKYQLLLKEMLKYSRNCEGAEDLQEALSSILGILKAVND  
SMHLIAITGYDGNLGD LGKLLMQGSFSVWTDH KRGHTKV KELARFKPMQRHLFLHEKAVLFCKKREENGEGYEKA  
PSYSYKQSLNMAAVGITENVKGD AKKFEI WYNAREEVYIVQAPTPEIKAAWVNEIRKVLTSQLQACREASQHRAL  
EQSQSLPLPAPTSTSPSRGNSRNIKKLEERKTDPLSLEGYVSSAPLTKPPEKGKGWSKTSHSLEAPEDDGGWSSA  
EEQINSSDAEEDGGLGPKKLVPKYTVVADHEKGGPDALRVRS GDVVVELVQEGDEGLW

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**FIGURE 17**

CTAGAATTCAGCGGCCGCTGAATTCTAGAACCCAGGTGCAACTGACATCGGGTGAACCCAGGGATCCATGCGGGAT  
TCTAGTGACAGGGGGCTCTGGGCTGGTAGGCAAAGCCATCCAGAAGGTGGTAGCAGATGGAGCTGGACTTCCTGG  
AGAGGACTGGGTGTTTGTCTCCTCTAAAGACGCCGATCTCACGGATACAGCACAGACCCGCGCCCTGTTTGGAGAA  
GGTCCAACCCACACACGTATCCATCTTGCTGCAATGGTGGGGGGCCTGTTCCGGAATATCAAATACAATTTGGA  
CTTCTGGAGGAAAAACGTGCACATGAACGACAACGTCTGCACTCGGCCTTTGAGGTGGGGGGCCCGCAAGGTGGT  
GTCCTGCCTGTCCACCTGTATCTTCCCTGACAAGACGACCTACCCGATAGATGAGACCATGATCCACAATGGGCC  
TCCCCACAACAGCAATTTTGGGTACTCGTATGCCAAGAGGATGATCGACGTGCAGAACAGGGCCTACTTCCAGCA  
GTACGGCTGCACCTTCACCGCTGTATCCCCACCAACGTTTTTCGGGGCCCACGACAACCTTCAACATCGAGGATGG  
CCACGTGCTGCCTGGCCTCATCCACAAGGTGCACCTGGCCAAGAGCAGCGGCTCGGCCCTGACGGTGTGGGGTAC  
AGGGAATCCGCGGAGGCAGTTCATATACTCGCTGGACCTGGCCCAGCTCTTTATCTGGGTCTGCGGGAGTACAA  
TGAAGTGGAGCCCATCATCCTCTCCGTGGGCGAGGAAGATGAGGTCTCCATCAAGGAGGCAGCCGAGGCGGTGGT  
GGAGGCCATGGACTTCCATGGGGAAGTCACCTTTGATACAACCAAGTCGGATGGGCAGTTTAAGAAGACAGCCAG  
TAACAGCAAGCTGAGGACCTACCTGCCCCGACTTCCGGTTCACACCCTTCAAGCAGGCGGTGAAGGAGACCTGTGC  
TTGGTTCCTGACAACCTACGAGCAGGCCCCGGAAGTGAAGCTGGAAGACAGGATCAGGTGCCAGCGGACCATCGGC  
TGGCAGAGCCCAGCGGCCACCACCCGTCAACCCTGCCAGGAGCTGAGGGCACCACCCAGCAACCTGGGCCTGCAT  
TCCATCCGCTCTGCAGCCCCAAGCATCTTTCCAGTGGGGCCCCCATTCACGTTGGTCTCAGGGAAACCAGGGTC  
CGGGGCAGGCCCCGCGCTTTGCTCCCCACACCAGCCCCCTGCGCGTGTCCACTCTGATCCTGCATCCCACTCCCT  
GGGAGCCAATAAAGTGCATTTTACAGAAAAAAAAA

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**FIGURE 18**

MGE PQGSMRILVTGG SGLVGKAIQKV VADGAGLPGEDWVFVSSKDADLTDTAQTRALFEKVQPTHVIHLAAMVGG  
LFRNIKYNLDFWRKNVHMNDNLHSAFEV GARKVVSLSTCIFPDKTTYPIDETMIHNGPPHNSNFGYSYAKRMI  
DVQNRAYFQQYGCTFTAVIPTNVFGPHDNFNIEDGHVLPGLIHKVHLAKSSGSALT VWGTGNPRRQFIYSLDLAQ  
LFIWVLREYNEVEPIILSVGEEDEVSIKEAAEAVVEAMDFHGEVTFD TTKSDGQFKKTASNSKLR TYLPDFRFTP  
FKQAVKETCAWFTDNYEQARK



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**FIGURE 19**

GAATTCTGCGGAGCCTGCGGGACGGCGGGGTTGGCCCGTAGGCAGCCGGGACAGTGTGTACAGTGTTTTGGG  
CATGCACGTGATACTCACACAGTGGCTTCTGCTCACCAACAGATGAAGACAGATGCACCAACGAGGGTCTGGAAT  
GGTCTGGAGTGGTCTGGAAAGCAGGGTCAGATACCCCTGGAAAAGTGAAGCCCGTGGAGCAATGATCTCTACAGG  
ACTGCTTCAAGGCTGATGGGAACCAACCCTGTAGAGGTCCATCTGCGTTCAGACCCAGACGATGCCAGAGCTATGA  
CTGGGCCTGCAGGTGTGGCGCCGAGGGGAGATCAGCCATGAGAGCAGCCACAGGAGGAAGCCCCCTGAGGTCCGGGA  
AGAGGAGGAGAAAGAGGAAGTGGCAGAGGCAGAAGGAGCCCCAGAGCTCAATGGGGGACCACAGCATGCACTTCC  
TTCCAGCAGCTACACAGACCTCTCCCGAGCTCCTCGCCACCCTCACTGCTGGACCAACTGCAGATGGGCTGTGA  
CGGGGCCTCATGCGGCAGCCTCAACATGGAGTGCCGGGTGTGCGGGGACAAGGCATCGGGCTTCCACTACGGTGT  
TCATGCATGTGAGGGGTGCAAGGGCTTCTTCCGTGCTACGATCCGCATGAAGCTGGAGTACGAGAAGTGTGAGCG  
CAGCTGCAAGATTGAGAAGAAGAACCGCAACAAGTGCCAGTACTGCCGCTTCCAGAAGTGCCTGGCACTGGGCAT  
GTCACACAACGCTATCCGTTTTTGGTTCGGATGCCGGAGGCTGAGAAGAGGAAGCTGGTGGCAGGGCTGACTGCAAA  
CGAGGGGAGCCAGTACAACCCACAGGTGGCCGACCTGAAGGCCTTCTCCAAGCACATCTACAATGCCTACCTGAA  
AAACTTCAACATGACCAAAAAGAAGGCCCGCAGCATCCTCACCGGCAAGCCAGCCACACGGCGCCCTTTGTGAT  
CCACGACATCGAGACATTGTGGCAGGCAGAGAAGGGGCTGGTGTGGAAGCAGTTGGTGAATGGCCTGCCTCCCTA  
CAAGGAGATCAGCGTGCACGTCTTCTACCGCTGCCAGTGACCCACAGTGGAGACCGTGCAGGGAGCTCACTGAGTT  
CGCCAAGAGCATCCCCAGCTTCAGCAGCCTCTTCTCAACGACCAGGTTACCTTCTCAAGTATGGCGTGACGA  
GGCCATCTTCGCCATGCTGGCCTCTATCGTCAACAAGGACGGGCTGCTGGTAGCCAACGGCAGTGGCTTTGTAC  
CCGTGAGTTCTTCGCGAGCCTCCGCAAAACCTTCAGTGATATCATTGAGCCTAAGTTTGAATTTGTGTCAAGTT  
CAACGCCCTGGAACCTTGATGACAGTGACCTGGCCCTATTCACTGCGGCCATCATTCTGTGTGGAGACCGGCCAGG  
CCTCATGAACGTTCCACGGGTGGAGGCTATCCAGGACACCATCCTGCGTGCCCTCGAATTTCACTGACGGCCAA  
CCACCTGATGCCAGTACCTCTTCCCAAGCTGCTGCAGAAGATGGCTGACCTGCGGCAACTGGTACCCGAGCA  
CGCCAGATGATGCAGCGGATCAAGAAGACCGAAACCGAGACCTCGCTGCACCCTCTGCTCCAGGAGATCTACAA  
GGACATGTACTAACCGCGGCACCCAGGCCTCCCTGCAGACTCCAATGGGGCCAGCACTGGAGGGGCCACCCACA  
TGACTTTTCCATTGACCAGCTCTCTTCTGTCTTTGTGTCTCCCTCTTCTCAGTTTCTTCTTTCTTTCTAATT  
CCTGTGCTCTGTTTCTTCTTTCTGTAGGTTTCTCTCTTCCCTTCTCCCTTCTCCCTTGCCTTCCCTTTCTCTC  
TCCTATCCCCACGTCTGTCTCTTTCTTATTCTGTGAGATGTTTTGTATTATTTACCAGCAGCATAGAACAGG  
ACCTCTGCTTTTGCACACCTTTTCCCAAGGAGCAGAAGAGAGTGGGCTGCCCTCTGCCCCATCATTGCACCTGC  
AGGCTTAGGTCTCACTTCTGTCTCTGTCTTTCAGAGCAAAAGACTTGAGCCATCCAAAGAAACACTAAGCTCTC  
TGGGCTGGGTTCCAGGGAAGGCTAAGCATGGCCTGGACTGACTGCAGCCCCCTATAGTCATGGGGTCCCTGCTG  
CAAAGGACAGTGGCAGACCCCGGCAGTAGAGCCGAGATGCCTCCCCAAGACTGTCATTGCCCCCTCCGATCGTGAG  
GCCACCACTGACCAATGATCCTCTCCAGCAGCACACCTCAGCCCCACTGACACCCAGTGTCTTCCATCTTCA  
CACTGGTTTGCCAGGCCAATGTTGCTGATGGCCCTCCAGCACACACATAAGCACTGAAATCACTTTACCTGC  
AGGCACCATGCACCTCCCTTCCCTCCCTGAGGCAGGTGAGAACCCAGAGAGAGGGGCTGCAGGTGAGCAGGCAG  
GGCTGGGCCAGGTCTCCGGGGAGGCAGGGGTCTGAGGTCTGGTGGGTCAGCCCAGCACCTCGCCCAGTGGGA  
GCTTCCCGGGATAAACTGAGCCTGTTCACTTCTGATGTCCATTTGTCCCAATAGCTCTACTGCCCTCCCTTCCCC  
TTTACTCAGCCCAGCTGGCCACCTAGAAGTCTCCCTGCACAGCCTCTAGTGTCCGGGGACCTTGTGGGACCAGTC  
CCACACCGCTGGTCCCTGCCCTCCCTGCTCCCAGGTTGAGGTGCGCTCACCTCAGAGCAGGGCCAAAGCACAGC  
TGGGCATGCCATGTCTGAGCGGCGCAGAGCCCTCCAGGCCTGCAGGGCAAGGGGCTGGCTGGAGTCTCAGAGCA  
CAGAGGTAGGAGAACTGGGGTTCAAGCCCAGGCTTCTGGGTCTGCTGCTTCCCTCCCAAGGAGCCATTCT  
ATGTGACTCTGGGTGGAAGTGGCCAGCCCCTGCCTGACGGXXXXXXGATCACTCTCTGCTGGCAGGATTCTTCC  
CGCTCCCCACCTACCCAGCTGATGGGGGTGGGGTGTCTTTAGCCAAGGCTATGAAGGGACAGCTGCTGGGA  
CCCACCTCCCCCTTCCCCGGCCACATGCCGCGTCCCTGCCCCACCCGGGTCTGGTGTGAGGATACAGCTCTT  
CTCAGTGTCTGAACAATCTCCAAAATTGAAATGTATATTTTGTAGGAGCCCCAGCTTCTGTGTTTTTAATAT  
AAATAGTGACACAGACTGACGAAACTTTAAATAAATGGGAATTAAATATTTAAAAAAAAGCGGCCGCAATT  
C

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**FIGURE 20**

MEQPQEEAPEVREEEKEEVAEAEGAPELNGGPQHALPSSSYTDLRSSSSPSLDQLQMGCDGASCGSLNMECR  
VCGDKASGFHYGVHACEGCKGFFRRTIRMKLEYEKCERSCKIQKKNRNKCQYCRFQKCLALGMSHNAIRFGMP  
AEKRRLVAGLTANEGSQYNPQVADLKAFSKHIYNAYLKNFNMTKKKARSILTGKASHTAPFVIHDIETLWQAEKG  
LVWKQLVNGLPYPYKEISVHVFYRCQCTTVETVRELTEFAKSIPSFSSLFLNDQVTLLKYGVHEAIFAMLASIVNK  
DGLLVANGSGFVTREFLRSLRKPFSDIIEPKFEFAVKFNALELDDSDLALFIAAIILCGDRPGLMNVPRVEAIQD  
TILRALEFHLQANHPDAQYLFPKLLQKMADLRQLVTEHAQMMQRIKKTETETSLHPLLQEIYKDMY

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**FIGURE 21**

CTCGCTGCGCCACCGCCTCCCGCCACCCCTGCCCGCCGACAGCGCCGCGCCTGCCCCGCCATGGGTCGACAGA  
AGGAGCTGGTGTCCCGCTGCGGGGAGATGCTCCACATCCGCTACCGGCTGCTCCGACAGGCGCTGGCCGAGTGCC  
TGGGGACCCATCATCTGGTGATGTTTGGCTGTGGCTCCGTGGCCCAGGTTGTGCTCAGCCGGGGCACCCACGGTG  
GTTTCCTCACCATCAACCTGGCCTTTGGCTTTGCTGTCACTCTGGGCATCCTCATCGCTGGCCAGGTCTCTGGGG  
CCCACCTGAACCCCTGCCGTGACCTTTGCCATGTGCTTCCTGGCTCGTGAGCCCTGGATCAAGCTGCCCATCTACA  
CCCTGGCACAGACGCTGGGAGCCTTCTTGGGTGCTGGAATAGTTTTTGGGCTGTATTATGATGCAATCTGGCACT  
TCGCCGACAACCAGCTTTTTGTTTCGGGCCCCAATGGCACAGCCGGCATCTTTGCTACCTACCCCTCTGGACACT  
TGGATATGATCAATGGCTTCTTTGACCAGTTCATAGGCACAGCCTCCCTTATCGTGTGTGTGCTGGCCATTGTTG  
ACCCCTACAACAACCCCGTCCCCGAGGCCTGGAGGCCTTCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCT  
CCATGGGCTTCAACTCCGGCTATGCCGTCAACCCTGCCCGGGACTTTGGCCCCCGCCTTTTTACAGCCCTTGCGG  
GCTGGGGCTCTGCAGTCTTCACGACCGGCCAGCATTGGTGGTGGGTGCCCATCGTGTCCCCACTCCTGGGCTCCA  
TTGCGGGTGTCTTCGTGTACCAGCTGATGATCGGCTGCCACCTGGAGCAGCCCCACCCCTCCAACGAGGAAGAGA  
ATGTGAAGCTGGCCCATGTGAAGCACAAGGAGCAGATCTTCAGTGGGCAGGGGCCATCTCCCCACTCCGCTGCCCT  
GGCCTTGAGCATCCACTGACTGTCCAAGGGCCACTCCCAAGAAGCCCCCTTCACGATCCACCCTTTTCAGGCTAAG  
GAGCTCCCTATCTACCCTCACCCACGAGACAGCCCTTCAGGATTTCCACTGGACCTTGCCCAATAGCACCTT  
AGGCCACTGCCCCTAAGCTGGGGTGGAACCGGAATTTGGGTCAATACATCCTTTTGTCTCCCAAGGGAAGAGAAT  
GGGCAGCAGGTATGTGTGTGTGTGCATGTGTGTGCATGTGTGTGCATGTGTGTGCAGGGGTGTGTGTGTGTGGGG  
GGGGTTCCCAGATATTCAGGGCAAGGGACAGTCGGAAGGGATTCTGGCTATTGGGGGAGCCCAGAGACAGGGGA  
AGGCAGCCTGTCCATCTGTGCATAAGGAGAGGAAAGTTCCAGGGTGTGTATGTTTCAGGGGCTTCACATGGAGGA  
GCTGCAGATAGATATGTGTTTCTGTGTATGTGTATGTCTGCCTTTTTTTCTAAGTGGGGGCTTCTACAGGCTTTT  
GGGAAGTAGGGTGGATGTGGGTAGGGCTGGGAGGAGGGGGCCACAGCTTAGGTTTGGAGCTCTGGATGTACATAC  
ATAAGTAGGAGCAGTGGGACGTGTTTCTGTGCATAATGCAGGCATGAAGGTGGAGTGAAGTCAGGTCATAAGTTT  
CATGTTTGCTTTTGTTTTGTTTTGTTTTAATGTATGTAGCAGATGTTACAGTCTTAGGGATCCGGGATGGGAGA  
CCCCACTTTAGAAAGGTGCTCACTCCTTTAATCCTCTACTCAACAATGTACTCTTTTACTTTTATATTAAAAAA  
AATAAAATAAATATGTGCCTAAAAAAAAAAAAAAAAA

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**FIGURE 22**

MGRQKELVSRGEMLHIRYRLLRQALAECLGTLILVMFGCGSVAQVVLSRGTHGGFLTINLAFGFAVTLGILIAG  
QVSGAHLNPAVTFAMCFLAREPWIKLPITYTLAQT LGAFLGAGIVFGLYYDAIWHFADNQLFVSGPNGTAGIFATY  
PSGHLDMINGFFDQFIGTASLIVCVLAIVDPYNNPVPRGLEAFTVGLVVLVIGTSMGFNSGYAVNPARDFGPRLE  
TALAGWGS AVFTTGQHWWVP IVSPLLGS IAGVFVYQLMIGCHLEQPPPSNEEENVKLAHVKHKEQI

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**FIGURE 23A**

CAAGTAGAACCTGAAGAACCTGAGCAGATCAACATCAACAACCTACAGTACCAGCAACCCCAGTATATCTGTGTTA  
TCTGATGGGACGGTTGACAGTGGTCAGGGATCCTCTGTCTTCACAGAATCTCGAGTGAGCAGCCAACAGACAGTT  
TCATATGGTTCCCAACATGAACAGGCACATTCTACAGGCACAGTCCCAGGGCATATACCTTCTACTGTCCAAGCA  
CAGTCTCAGCCCCATGGGGTATATCCACCCTCAAGTGTGCAGCAGGGAATACAGCAGACAGCCCCCTCCTCAACAG  
ACAGTGCAGTATTCACTTTCACAGACATCAACCTCCAGTGAGGCCACTACTGCACAGCCAGTGAGTCAACCTCAA  
GCTCCACAAGTCTTGCCCTCAAGTATCAGCTGGAAAACAGGGCTTCCCACCTCGACTGCCACCACAGTACCCAGGA  
GATTCAAATATTGCTCCCTCTTCCAACGTGGCTTCTGTTTGCATCCATTCTACAGTCCTATCCCCCTCCCATGCCG  
ACAGAAGTACTGGCTACACCTGGGTACTTTCCCACAGTGGTGCAGCCTTATGTGGAATCAAATCTTTTAGTTCTCT  
ATGGGTGGTGTAGGAGGACAGGTTCAAGTGTCCCAGCCAGGAGGGAGTTTAGCACAAAGCCCCACTACATCCTCC  
CAGCAAGCAGTTTTTGAGAGTACTCAGGGAGTCTCTCAGGTTGCTCCTGCAGAGCCAGTTGCAGTAGCACAGCCC  
CAAGCTACCCAGCCGACCCTTTGGCTTCTCTGTAGACAGTGCACATTCAGATGTTGCTTCAGGTATGAGTGAT  
GGCAATGAGAAGCTCCCATCTTCCAGTGGAAGGCATGAAGGAAGAACTACAAAACGGCATTACCGAAAATCTGTA  
AGGAGTCGCTCTCGACATGAAAAAATTACAGCCCCAAAATTAAGAATTTTGAATGTTCAAATAAAGGAGACCGA  
GTAGTAGAATGTCAATTAGAGACTCATAATAGGAAAATGGTTACATTCAAATTTGACCTAGATGGTGACAACCCC  
GAGGAGATAGCAACAATTATGGTGAACAATGACTTTATTCTAGCAATAGAGAGAGAGTCTGTTTGTGGATCAAGTG  
CGAGAAATTATTGAAAAAGCTGATGAAATGCTCAGTGAGGATGTCAGTGTGGAACCAGAGGGTGATCAGGGATTG  
GAGAGTCTACAAGGAAAGGATGACTATGGCTTTTCAGGTTCTCAGAAATTGGAAGGAGAGTTCAAACAACCAATT  
CCTGCGTCTTCCATGCCACAGCAAATAGGCATTCTACCAGTTCTTTAACTCAAGTTGTTCTATTCTGCGGGAAGG  
CGGTTTATAGTGAGTCTGTGCCAGAAAGCCGATTACGAGAATCAAAGTTTTCAGTGAATAACAGATACA  
GTTGCTGCCTCTACAGCTCAGAGCCCTGGAATGAACCTGTCTCACTCTGCATCATCCCTTAGTCTACAACAGGCC  
TTTTCTGAACCTTAGACGTGCCCAAATGACAGAAGGACCCAACACAGCACCTCCAACTTTAGTCATACAGGACCA  
ACATTTCCAGTAGTACCTCCTTTCTTAAGTAGCATTGCTGGAGTCCCAACTACAGCAGCAGCCACAGCACCAGTC  
CCTGCAACAAGCAGCCCTCCTAATGACATTTCCACATCAGTAATTCAGTCTGAGGTTACAGTGCCCACTGAAGAG  
GGGATTGCTGGAGTTGCCACCAGCACAGGTGTGGTAACTTCAGGTGGTCTCCCCATACCACCTGTGTCTGAATCA  
CCAGTACTTTCCAGCGTAGTTTCAAGTATCACAATACCTGCAGTTGTCTCAATATCTACTACATCCCCGTCACTT  
CAAGTCCCCACATCCACATCTGAGATCGTTGTTTCTAGTACAGCACTGTATCCTTCAGTAACAGTTTCAGCACT  
TCAGCCTCTGCAGGGGGCAGTACTGCTACCCAGGTCTTAAGCCTCCAGCTGTAGTATCTCAGCAGGCAGCAGGC  
AGCACTACTGTGGGAGCCACATTAACATCAGTTTCTACCACCACTTCAATCCCAAGCACAGCTTCACAGCTGTCC  
ATTAGCTTAGCAGCAGTACTTCTACTCCTACTTTAGCTGAAACCGTGGTAGTTAGCGCACACTCACTAGATAAG  
ACATCTCATAGCAGTACAACCTGGATTGGCTTTCTCCCTCTCTGCACCATCTTCCTCTTCTCTGGAGCAGGA  
GTGTCTAGTTATATTTCTCAGCCTGGTGGGCTGCATCCTTTGGTCAATCCATCAGTGATAGCTTCTACTCCTATT  
CTTCCCCAAGCAGCAGGACCTACTTCTACACCTTTATTACCCCAAGTACCTAGTATCCCACCCCTGGTACAGCCT  
GTTGCCAATGTGCTGTGTACAGCAGACACTAATTCATAGTCAGCCTCAACCAGCTTTGCTTCCCAACCAGCCC  
CATACTCATTGTCTGAAGTAGATTCTGATACACAACCCAAAGCTCCTGGAATTGATGACATAAAGACTCTAGAA  
GAAAAGCTGCGGTCTCTGTTTCAGTGAACACAGCTCATCTGGAGCTCAGCATGCCTCTGTCTCACTGGAGACCTCA  
CTAGTCATAGAGAGCACTGTACACCAGGCATCCCAACTACTGCTGTTGACCAAGCAAACCTCTGACTTCTACC  
ACAAGTACTTGCTTACCACCAACCAATTTACCCTAGGAACAGTTGCTTTGCCAGTTACACCAGTGGTACACCT  
GGGCAAGTTTCTACCCAGTCAGCACTACTACATCAGGAGTGAAACCTGGAAGTGTCCCTCCAAGCCACCTCTA  
ACTAAGGCTCCGGTGCTGCCAGTGGGTACTGAACCTTCAGCAGGTACTCTACCCAGCGAGCAGCTGCCACCTTTT  
CCAGGACCTTCTCTAACCAGTCCCAGCAACCTCTAGAGGATCTTGATGCTCAATTGAGAAGAACACTTAGTCCA  
GAGATGATCACAGTGACTTCTGCGGTTGGTCTGTGTCCATGGCGGCTCCAACAGCAATCACAGAAGCAGGAACA  
CAGCCTCAGAAGGGTGTTTCTCAAGTCAAAGAAGGCCCTGTCTAGCAACTAGTTCAGGAGCTGGTGTTTTAAAG  
ATGGGACGATTTTCAGTTTCTGTTGCAGCAGACGGTGCCAGAAAGAGGGTAAAAATAAGTCAGAAGATGCAAAG  
TCTGTTCAATTTGAATCCAGCACCTCAGAGTCTCAGTGCTATCAAGTAGTAGTCCAGAGAGTACCTTGGTGAAA  
CCAGAGCCGAATGGCATAACCATCCCTGGTATCTCTTCAGATGTGCCAGAGAGTGCCCAAAAACCTACTGCCTCA  
GAGGCAAAGTCAGACACTGGGCAGCCTACCAAGTTGGACGTTTTTCAGGTGACAACCTACAGCAAACAAAGTGGGT  
CGTTTCTCTGTATCAAAAACCTGAGGACCAGATCACTGACACAAAGAAAGAGGACCAGTGGCATCTCCTCCTTTT  
ATGGATTTGGAACAAGCTGTTCTTCTGCTGTGATACCAAAGAAAGAGAAGCCTGAACTGTCAGAGCCTTCACAT

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**FIGURE 23B**

CTAAATGGGCGCTCTTCTGACCCGGAGGCGGCTTTTTTAAAGTAGGGATGTGGATGATGGTTCCGGTAGTCCACAC  
TCGCCCCATCAGCTGAGCTCAAAGAGCCTTCCTAGCCAGAATCTAAGTCAAAGCCTTAGTAATTCATTAACTCC  
TCTTACATGAGTAGCGACAATGAGTCAGATATCGAAGATGAAGACTTAAAGTTAGAGCTGCGACGACTACGAGAT  
AAACATCTCAAAGAGATTGAGGACCTGCAGAGTCGCCAGAAGCATGAAATTGAATCTTTGTATACCAAACCTGGGC  
AAGGTGCCCCCTGCTGTTATTATTCCTCCAGCTGCTCCCTTTTCAGGGAGAAGACGACGACCCACTAAAAGCAAA  
GGCAGCAAATCTAGTCGAAGCAGTTCCTTGGGGAATAAAAGCCCCCAGCTTTCAGGTAACCTGTCTGGTCAGAGT  
GCAGCTTCAGTCTTGACCCCCAGCAGACCCTCCACCCTCCTGGCAACATCCCAGAGTCCGGGCAGAATCAGCTG  
TTACAGCCCCCTTAAGCCATCTCCCTCCAGTGACAACCTCTATTGAGCCTTCACCAGTGATGGTGCCATTTTCAGTA  
CCAAGCCTTTCTGCTCCAGGTCAAGGTAATAAAGCAACCATCATCGTCCAAAAACAAT~~TAA~~AATGGAGATGTTGCC  
ATACCTGGGACAAAAGCCTGTTAAGGCGGGTTGGGAGACTAGCTGACCAGAACACAGCCTGTGTGTTGTACACTG  
AAGAATCTGGGTGAAAAGGGAAGTGGAGTGATAATGAGAATCGGTGGGCTCACTGCTCCCATTAGGTGAAATTAC  
TTTTTTTCAAGGAATTACAGTGAAAAGTTACATCTGTGTGGCCTATATGACTTGCTCATTTGGGATTTGGAACTT  
AGGCTTTAATATTAGGCTGAGATTTCTGGATGAAATTCTAAGGTGTTTTAGCAGTTTCTGAAGCTAATACATTT  
TCTTAGCCATTGTAGAATTTTGTTACTTTTAAAGTATGGGAGTGGCATACTAAAATGAATAACCTTACAATTCAGT  
TTTTTATCCATAATCTACTTTCCAAATATAGCTCTGTTTATTAGTGATTGCTGAAAAAATTCCCACAGAGGAAAG  
AGCTTTTAGTCATATTAGAACAAGAATTGAAAAGACTTGGGCATCTGGGTGAGAAGAATGAAAAAATATAGGTA  
CTGGCTTATGTGCCTTTGCCACAGTTTTCACAGAAATTAGAGATCAGTCTCTTCACAGGAAGAATGCACTTGATTG  
GTAAGGAGGGCAAACCTAGCTAGCATTATTGAACTAAGAAAAGCTTCCGCATTTTGCAGATGGGTAGAATTAAGA  
CCTAATATTTTCATCTCTTACATATCTGACCTTCCCCCAGAAGCTTGTTCTTCTGTGTGCCATCTTAGTGCAATT  
CACCCTCCAGCCTCAAGTTTCTAACATCTTGTAGTTGTGTCTGTCTCTTCTCCTCTCTCTGTTCTACCCCTGTT  
TTTCCCCTCTCACAGGCTGTGCGAAGTTTAACTGTGCATCTGAACAGGTGACATTCAAACCTGGTGGCAGGAGGA  
CCCGATTTCTGAGTACGCCCTGCTTGGCTCTTTGTGTGTAACACCTTTACTCCTTCCTTGTCTTGTGTTTCTGC  
TGCTTGGATCTGATGTTTACGCGAGTCCATTTTCAATTTGTCTCTTTTGTATATCATCTACTCAGTGGCTTGGCT  
GAATTACTGTTACCCTCAGAAGTTTGGGCCCCCACATTAATTATGATAAAAAATGTCAAATAACAAGTTATCTA  
CAAAATTCATGTAACCTTTCTGGTAGAAGTGCTTCTTCATGGATCTGTGACAGAGAGTGGATATGGTATCTAGGC  
AATAGATTGCTGGGTCAATTTAGAATAATGAAGACTGAACTCCACAGTCGTAGTCAGTGCTGTCTGTCTGCCCTAG  
CATTAGAAATGACGAGAAATCAGCCA

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**FIGURE 24**

QVEPEEPEQININNYSTSNPSISVLS DGTVD SGQGSSVFTE SRVSSQQT VSYGSQHEQAHSTGTVPGHIPSTVQA  
QSOPHG VYFPSSVQQGIQQTAP PQQTVQYSLSQ TSTSSEATTAQPV SQPQAPQVLPQVSAGKQGFPPRLPPQYPG  
DSNIAPSSNVASVCIHSTVLSPMPTEVLATPGYFPTVVQPYVESNLLVPMGGVGGQVQVSQPGGSLAQAPTSS  
QQAVLESTQGV SQVAPAE PVAVAQPQATQPTTLASSVDSAHS DVASGMSDGNENVPSSSGRHEGRTTKRHYRKS  
RSRSRHEKTSRPKLRILNVS NKGDRVVECQLETHNRKMVTFKF DLDGDNPEEIATIMVNNDFILAIERESFVDQV  
REIIEKADEMLSEDVSVEPEGDQGLESLQGKDDYGFSGSQKLEGEFKQPIPASSMPQQIGIPTSSLTQVVHSAGR  
RFIVSPVPESRLRESKVFPSEITDTVAASTAQSPGMNL SHSASSLSLQQA FSELRRQMTEGPNTAPPNFSHTGP  
TFPVVPFFLSSIAGVPTTAAATAPVPATSSPPNDISTSVIQSEVTVPTTEGIAGVATSTGVVTS GGLPIPPVSES  
PVLSSVVSSITIPAVSISTTSPSLQVPTSTSEIVVSSTALYPSVTVSAT SASAGGSTATPGPKPPAVVSQQAAG  
STTVGATLTSVSTTTSFPSTASQLSIQLSSSTSTPTLAETVVVSAHSLDKTSHSSTTGLAFSL SAPSSSSSPGAG  
VSSYISQPGGLHPLVIPSVIASTPILPQAAGPTSTPLLPQVPSIPPLVQPVANVPAVQQTLIHSQPPALLPNQF  
HTHCPEVDSDTQPKAPGIDDIKTLEEKLRSLFSEHSSSGAQHASVSLETSLVIESTVTPGIPTTAVAPSKLLTST  
TSTCLPPTNLPLGTVALPVPVTPGQVSTPVSTTTSGVKPGTAPSKPPLTKAPVLPVGTLPAGTLPSEQLPPF  
PGPSLTQSQQPLEDLDAQLRRTLSPMITVTS AVGPVSMAAPTATEAGTQPQKGV SQVKEGPVLATSSGAGVFK  
MGRFQVSVAADGAQKEGKNKSEDAKSVHFESSTSESSVLSSSSPESTLVKPEPNGITIPGISSDVPESAHKTTAS  
EAKSDTGQPTKVGRFQVTTTANKVGRFSVSKTEDQITDTKKEGPVASPPFMDLEQAVLPAVIPKKEKPELSEPSH  
LNGPSSDPEAAFLSRD VDDGSGSPHSPHQLSSKSLPSQNL SQSLSNSFNSSYMSSDNESDIEDEDLKLELRLRD  
KHLKEIQDLQSRQKHEIESLYTKLGKVP PAVIIPPAAPLSGRRRRPTKSKGSKSSRSSSLGNKSPQLSGNLSGQS  
AASVLHPQQTLHPPGNIPESGQNQLLQPLKPS PSSDNLYS AFTSDGAISVPSLSAPGQGNKATIIIVQKQ

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**FIGURE 25**

CAATACAGCTAAGGAATTATCCCTTGTAATACCACAGACCCGCCCTGGAGCCAGGCCAAGCTGGACTGCATAAA  
GATTGGTATGGCCTTAGCTCTTAGCCAAACACCTTCCTGACACCATGAGGGCCAGCAGCTTCTTGATCGTGGTGG  
TGTTCCCTCATCGCTGGGACGCTGGTTCTAGAGGCAGCTGTCACGGGAGTTCTGTAAAGGTCAAGACACTGTCA  
AAGGCCGTGTTCCATTCAATGGACAAGATCCCGTTAAAGGACAAGTTTCAGTTAAAGGTCAAGATAAAGTCAAAG  
CGCAAGAGCCAGTCAAAGGTCCAGTCTCCACTAAGCCTGGCTCCTGCCCCATTATCTTGATCCGGTGCGCCATGT  
TGAATCCCCCTAACCGCTGCTTGAAAGATACTGACTGCCCAGGAATCAAGAAGTGCTGTGAAGGCTCTTGCGGGA  
TGGCCTGTTTCGTTCCCCAGTGAAGGGAGCCGGTCCTTGCTGCACCTGTGCCGTCCCCAGAGCTACAGGCCCCAT  
CTGGTCCTAAGTCCCTGCTGCCCTTCCCCTTCCCACACTGTCCATTCTTCTCCCATTCAGGATGCCACGGCTG  
GAGCTGCCTCTCTCATCCACTTTCCAATAAA



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**FIGURE 26**

MRASSFLIVVVFLIAGTLVLEAAVTGVPVKGQDTVKG RVPFNGQDPVKGQVSVKGQDKVKAQEPVKGPFVSTKPGS  
CPIILIRCAMLNPPNRCLKDTCPGIKKCCEGSCGMACFVPQ

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**FIGURE 27A**

CGGGCCGGCCTGGTGCTGCACGCCTGTCTAGCCATCGCCCCGAGCCGCCGGCTCTCCTCCCGCCAGCAGTTCCTC  
CACGCAGGGGCTCCGGAATCGCCCGACCGCACACGTTGCCACCCTGAGGTCTTTCTGGAAGTGGATATCTACTCA  
GACAGTAAGAATTATAAGAGCTGTAAGAGCTCATTTGGAGGAATAATGGATGAACCATCTCCCTTGGCCCCAACCT  
CTGGAGCTGAACCAGCACTCTCGATTCTAATAGGTTCTGTGTCTGAAGATAACTCAGAGGATGAGATCAGCAAC  
CTGGTGAAGTTGGACCTACTGGAGGAGAAGGAGGGCTCCTTGTCACCTGCTTCTGTTGGCTCAGATACACTCTCT  
GATTTGGGGATCTCTAGCCTACAGGATGGCTTGGCCTTGACATAAGGTCCAGCATGTCTGGCTTGACCTAGTA  
AAGCAGGGCCGAGACAGAAAGAAAATAGATTCTCAACGAGATTTCACTGTGGCTTCTCCAGCAGAAATTTGTTACT  
CGCTTGGGGGAAATAAAGTGATTGAGAAGGTTCTTATTGCTAACAATGGCATTGCAGCAGTGAAATGCATGCGGT  
CTATCCGTAGGTGGTCTTATGAAATGTTTCGAAATGAACGTGCAATTAGATTGCTTGTCTATGGTTCACACCTGAAG  
ACCTTAAAGCCAATGCAGAATACATTAAGATGGCAGATCACTATGTGCCAGTGCCTGGAGGACCAACAACAACA  
ACTATGCAAATGTGGAATTAATTCTTGATATTGCTAAAAAGGATCCAGTACAAGCAGTGTGGGCTGGCTGGGGTC  
ATGCTTCTGAGAATCCCAAACCTACCGGAACCTTCTCTTGAAAAATGGCATTGCCTTCATGGGTCTCCAAGCCAGG  
CCATGTGGGCTTTAGGGGATAAGATTGCATCTTCCATAGTGGCTCAAACCTGCAGGTATCCCAACTCTTCCCTGGA  
GCGGCAGTGGTCTTCGTGTGGACTGGCAGGAAAATGATTTTCAAACGTATCTTAAATGTTCCCGAGGAGCTAT  
ATGAAAAAGGTTATGTGAAAGATGTGGATGATGGGCTACAGGCAGCTGAGGAAGTTGGATATCCAGTAATGATCA  
AGGCCTCAGAGGGAGGAGGAGGGAAGGGAATTAGAAAAGTCAACAATGCAGATGACTTCCCTAATCTCTTCAGAC  
AGGTTCAAGCTGAAGTTCCTGGATCTCCCATATTTGTGATGAGACTAGCCAAACAATCTCGTCATCTGGAGGTGC  
AGATCTTAGCGGACCAATATGGCAATGCTATCTCTTTGTTTGGTCGTGATTGCTCTGTACAACGCAGGCATCAGA  
AGATTATTGAAGAAGCACCTGCTACTATTGCTACTCCAGCAGTATTTGAACACATGGAACAGTGTGCGGTGAAAC  
TTGCCAAAATGGTGGGTTATGTGAGTGTCTGGGACTGTGGAATACCTGTACAGCCAGGATGGCAGCTTCTACTTTC  
TGGAATTGAATCCTCGGCTGCAGGTAGAGCACCTTGTACAGAGATGGTGGCTGATGTCAATCTCCCTGCAGCAC  
AGCTCCAGATTGCCATGGGGATTCTCTATATAGAATCAAGGATATCCGTATGATGTATGGGGTATCTCCCTGGG  
GTGATTCTCCCATTTGATTTTGAAGATTCTGCACACGTTCTTGTCCAAGGGGCCATGTTATTGCTGCTCGGATCA  
CTAGTGAAAATCCAGATGAGGGTTTTAAGCCAGCTCAGGAACAGTTCAGGAGCTAAATTTCCGCAGCAATAAGA  
ATGTTTGGGGATATTTCAAGTGTGCTGCTGCAGGGGACTTCATGAATTGCTGATTCTCAGTTTGGTCACTGCTT  
TTCTTGGGGAGAAAACAGAGAAGAGGCAATTTCAAACATGGTGGTGGCTTTGAAGGAGCTGTCTATTGGGGTGA  
CTTTCGAACTACAGTTGAATACCTGATCAAATTGTTAGAGACTGAAAGCTTTCAGATGAACAGAATTGATACTGG  
CTGGCTGGACAGACTGATAGCAGAAAAGTACAGGCTGAGCGACCTGACACCATGTTGGGGGTGTGTGTGGTGC  
CCTCCACGTGGCAGATGTGAGCCTGCGGAATAGCGTCTCTAACTTCTCTCACTCCTTAGAAAGGGGTCAAGTCTT  
TCCTGCTCATACTTCTGAATACAGTAGATGTTGAACTTATCTATGAGGGAGTCAAGTATGTACTTAAGGTGAC  
TCGACAGTCCCCAACCTCTATGTGGTGTATCATGAATGGCTCATGTGTAGAAGTAGATGTACATCGGCTGAGTGA  
CGGTGGACTGCTCTTGTCTATGATGGCAGCAGTTATACTACGTATATGAAAGAGGAAGTGGATAGATATCGCAT  
CACAATTGGCAATAAAACCTGTGTGTTGAGAAGGAAAATGACCCATCGGTGATGCGCTCACCTTCTGCTGGGAA  
GTTAATCCAGTACATTGTAGAAGATGGAGGTCTGTGTTTGCCGGCCAGTGCTATGCTGAGATTGAGGTAATGAA  
GATGGTAATGACCTTAACAGCTGTGGAGTCTGGCTGTATCCATTACGTCAAGCGACCTGGAGCAGCTCTTGACCC  
TGGCTGTGTACTAGCCAAAATGCAACTGGACAACCCAGCAAGGTTTACGAGGCTGAACCTTACACAGGTAGTCT  
GCCACGGATCCAGAGCACGGCACTCAGAGGCGAGAACTCCATCGAGTGTTCATTATGTCTGGATAATCTGGT  
CAATGTAATGAATGGATACTGCCTTCCAGATCCTTTCTCTAGCAGCAAGGTAAAAGACTGGTAGAGCGATTGATG  
AAAACCTCAGAGATCCCTCCCTGCCTCTCCTAGAATTGCAAGATATTATGACCAGTGTGTCTGGCCGCATTCCCC  
CCAATGTGGAGAAGTCTATCAAGAAGGAAATGGCTCAGTATGCTAGCAACATCACATCAGTCTCTGTCTAGTTTC  
CCAGCCAGCAGATTGCAAACATCCTAGATAGCCATGCAGCTACATTGAACCGGAAATCTGAACGGGAAGTCTTCT  
TTATGAATACTCAGAGCATTGTTTCTAGCTGGTACAGAGGTACCGAAGTGGCATCCGAGGCCACATGAAGGCTGTGG  
TGATGGATCTGCTCCGGCAGTACCTGCGAGTAGAGACACAATTCAGAATGGTCACTATGACAAATGTGTATTTCG  
CCCTCCGAGAAGAGATAAAAGTGACATGAACACTGTACTGAACTACATCTTCTCTCACGCTCAAGTCACCAAGA  
AGAATCTTCTGGTCACAATGCTTATTGATCAGTTGTGTGGCCGGGACCCTACTCTCACTGATGAGCTGTGAATA  
TTCTCACAGAGCTAACTCAACTCAGTAAGACCACCAATGCCAAAGTAGCACTTCGAGCAGCCAGGTTCTTATTG  
CCICCCATTGGCATCATATGAGCTTCGCCATAACCAAGTAGAGTCTATCTTCTATCAGCTATTGACATGTATG  
GACATCAATTTTGCAATTGAGAACCTGCAGAACTCATCTATCAGAAACATCTATTTTGTATGTCCTACCAAACCT

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**FIGURE 27B**

TCTTCTATCACAGCAACCAAGTAGTGAGGATGGCAGCTCTGGAGGTGTATGTTTGAAGGGCTTATATTGCCTATG  
AACTTAACAGCGTACAACACCGCCAGCTTAAGGACAACACCTGTGTGGTGGAAATCCAGTTCATGCTGCCCACAT  
CTCATCCAAACAGAGGGGAACATCCCTACGCTAAACAGAATGTCCTTCTCCTCCAACCTCAACCCTATGGCATGA  
CCCATGTAGCTAGTGTACGCGATGTACTGTTGGACAACCTCATTCACTCCACCTTGTGACGCGGATGGGCGGAATGG  
TCTCTTTTTCGGACTTTTGAAGATTTTGTGAGGATCTTTGATGAAGTGATGGGCTGCTTCTCTGACTCCCCACCCC  
AGAGTCCCACATTCCCTGAGGCAGGTACACAGTCTCTTTATGATGAGGATAAGGTTCCCAGGGATGAACCAATTC  
ACATTCTCAATGTGGCTATCAAGACTGACTGTGATATTGAGGATGACAGGCTGGCAGCTATGTTTACAGAGAATTTA  
CCCAGCAAAAATAAAGCTACCCCTGGTTGACCATGGGATCCGGCGCCTTACTTTCTGCTGTTGCACAAAGGATTTTACAG  
AAAGCAGGTCAACTATGAGGTGGATCGGAGATTTTCATAGAGAATTCCTAAATTTTTTACATTCCGAGCAAGGGA  
TAAGTTTGAGGAGGATCGTATCTATCGTCATCTGGAGCCTGCTCTGGCTTTCCAGTTAGAGCTGAACCGGATGAG  
AAATTTTGACCTCACTGCCCATTCCATGTGCTAATCACAAGATGCACCTGTATCTCGGGGCAGCCAAGGTGGAAG  
TGGGCACAGAAGTGACAGACTACAGGTTCTTTGTTCTGTGCAATCATCAGGCATTCTGATCTGGTCACCAAGGAAG  
CTTCTTTTGAATATCTGCAAAATGAAGGGGAGCGGCTACTCCTGGAAGCCATGGATGAGTTGGAAGTTGCTTTTA  
ACAATACAAATGTCCGCACTGACTGCAACCACATCTTCTCAACTTCGTGCCCACTGTCTATCATGGACCCCTCAA  
AGATCGAGGAGTCCGTGCGCTACATGGTTATGCGCTACGGCAGCCGGCTGTGGAACTCCGTGTGCTACAGGCTG  
AGGTCAAGATCAACATCCGCCAGACCACCACGGCAGTGCCGTTCCCATCCGCCTGTTTCATACCAATGAGTCGG  
GCTACTACCTGGACATCAGCCTCTACAAAGAAGTGACTGACTCCAGATCTGGAAATATCATGTTTCACTCCTTCG  
GCAACAAGCAAGGGCCCCAGCACGGGATGCTGATCAATACTCCCTACGTCACCAAGGATCTTGCTCCAGGCCAA  
AGCGATTCCAGGCCCAGACCCTGGGAACCACCTACATCTATGACTTCCCGGAAATGTTTCAGGCAGGCTCTCTTTA  
AACTGTGGGGCTCCCCAGACAAGTATCCCAAAGACATCCTGACATACACTGAATTAGTGTGGACTCTCAGGGCC  
AGCTGGTGGAGATGAACCGACTTCTGTTGGAAATGAGGTGGGCATGGTGGCCTTCAAATGAGGTTTAAGACCC  
AGGAGTACCCGGAAGGACGGGATGTGATCGTCATCGGCAATGACATCACCTTTCGCATTGGATCCTTTGGCCCTG  
GAGAGGACCTTCTGTACCTGCGGGCATCCGAGATGGCCCCGGCAGAGGGCATTCCCAAAATTTACGTGGCAGCCA  
ACAGTGGCGCCCCGTATTGGCATGGCAGAGGAGATCAAACACATGTTCCACGTGGCTTGGGTGGACCCAGAAGACC  
CCCACAAAGGATTTAAATACCTGTACCTGACTCCCCAAGACTACACCAGAATCAGCTCCCTGAACTCCGTCCACT  
GTAAACACATCGAGGAAGGAGGAGAGTCCAGATACATGATCACGGATATCATCGGGAAGGATGATGGCTTGGGCG  
TGGAGAATCTGAGGGGCTCAGGCATGATTGCTGGGGAGTCTCTCTGGCTTACGAAGAGATCGTCACCATTAGCT  
TGGTGACCTGCCGAGCCATTGGGATTGGGGCCTACTTGGTGAGGCTGGGCCAGCGAGTGATCCAGGTGGAGAATT  
CCCACATCATCCTCACAGGAGCAAGTGCTCTCAACAAGGTCTGGGAAGAGAGGTCTACACATCCAACAACCAGC  
TGGGTGGCGTTTTCAGATCATGCATTACAATGGTGTCTCCACATCACCGTGCCAGATGACTTTGAGGGGGTTTATA  
CCATCCTGGAGTGGCTGTCTATATGCCAAAGGATAATCACAGCCCTGTCCCTATCATCACACCCACTGACCCCA  
TTGACAGAGAAAATTGAATTCTCTCCATCCAGAGCTCCCTACGACCCCCGGTGGATGCTTGAGGAAGGCCTCACC  
CAACTCTGAAGGGAACGTGGCAGAGCGGATTCTTTGACCACGGCAGTTTCAAGGAAATCATGGCACCCCTGGGCGC  
AGACCGTGGTGACAGGACGAGCAAGGCTTGGGGGATTCCCGTGGGAGTGATTGCTGTGGAGACACGGACTGTGG  
AGGTGGCAGTCCCTGCAGACCCTGCCAACCTGGATTCTGAGGCCAAGATAATTCAGCAGGCAGGACAGGTGTGGT  
TCCCAGACTCAGCCTACAAAACCGCCCAGGCCATCAAGGACTTCAACCGGGAGAAGTTGCCCTGATGATCTTTG  
CCAACTGGAGGGGGTTTCTCCGGTGGCATGAAAGACATGTATGACCAGGTGCTGAAGTTTGGAGCCTACATCGTGG  
ACGGCCTTAGACAATAACAAACAGCCCATCTGATCTATATCCCGCCCTATGCGGAGCTCCGGGGAGGCTCCTGGG  
TGGTCATAGATGCCACCATCAACCCGCTGTGCATAGAAATGTATGCAGACAAAGAGAGCAGGGGTGGTGTCTTGG  
AACCAGAGGGGACAGTGGAGATTAAAGTTCCGAAAGAAAGATCTGATAAAGTCCATGAGAAGGATCGATCCAGCTT  
ACAAGAAGCTCATGGAACAGCTAGGGGAACCTGATCTCTCCGACAAGGACCGAAAGGACCTGGAGGGCCGGCTAA  
AGGCTCGCGAGGACCTGCTGCTCCCCATCTACCACCAGGTGGCGGTGCAGTTTCGCCGACTTCCATGACACACCCG  
GCCGGATGCTGGAGAAGGGCGTCATATCTGACATCCTGGAGTGGAAAGACCGCACGCACCTTCCTGTATTGGCGTC  
TGCGCCGCTCCTCCTGGAGGACCAGGTCAAGCAGGAGATCCTGCAGGCCAGCGGGGAGCTGAGTCACGTGCATA  
TCCAGTCCATGCTGCGTCGCTGGTTCTGTGGAGACGGAGGGGGCTGTCAAGGCCTACTTGTGGGACAACAACCAGG  
TGGTTGTGCAGTGGCTGGAACAGCACTGGCAGGCAGGGGATGGCCCGGCTCCACCATCCGTGAGAACATCACGT  
ACCTGAAGCACGACTCTGTCTCAAGACCATCCGAGGCCTGGTTGAAGAAAACCCCGAGGTGGCCGTGGACTGTG  
TGATATACCTGAGCCAGCACATCAGCCCAGCTGAGCGGGCGCAGGTTCGTTACCTGCTGTCTACCATGGACAGCC

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**FIGURE 27C**

CGGCCTCCACCT**TGA**CCGTGGCCCCACCCAGCCACTCCCGGGACCACGGCAAAAGGAACCCAGACCCACCACCC  
GTACACCCTCAGCAGACCCTGAAGACTTGCTTTTAAACAAAGAAAATCCTGGGCACCTTCTGCAGGGCTGCTGGTT  
CCGAGCTGACACCCGTCTTAATAAAAGGCCAGGAGTGCCTCTTCCAAACAAAAACAGCCTCCTCTCCATAGCTG  
GGAAGTTTATTTTGTCTCTGAAGACAGCAGTTTTATTGCATCACTAAATCTAATCAAGCTAAAACATCCC  
TGTTTCCTTTTGCAAAACAGTGCCTGGCATGTGGGATCCAGGCGTTCTTTAGGATCCTTGGATACCACATCGTGA  
AATCTTTTATTTTTTACTCTGAGACCAGCACCAGATGTAAGTAAGCATCTCATATATTTTCAGCCAAATAAATGG  
GCCAAGGGAAAAAATATATATATATAGACAGGACTAGAGAAAACCTATTTTTGTAAATGATGTTTCTTTGGATAC  
TGTCTAGTCACCCAGAAAAATGTATGGATGAANNNNNNNNNNNNNNNNNNNGAGACAAAGTCTCCCCGGTTGTCG  
TGCAGGCTGGAGTTGCAGGTGGCATTGATCTCTTCACTGTGCAACCCTCCATTCCCTCCTGTGTTCTCAGGCCCT  
CCTTAGATTAACGTGGAATTTACAAGCGTGCCACCACCATGTGCCCGGCTTAATTTTGTGGTATTTTTGTGGAT  
AGAGACAGAGTTTCCACCAGTTTGGCTCAGGCGTGGTCTCTCTCAAACCTCTTTGACTTTCAGGTTAATTCCAC  
CCACCTTTGGCCCTCCCAAAGTTGCTGGAATTTACAGGCATTTACGCCACCATCTTTCAGCCAGATGTGATTT  
TTTCTTATTTGAAAACAGTTGAAAGTGCTTATTTTTTTGTTCCCCAAATGGCGCTAGTGAATCACTAGGAGGGTCC  
CACTGATAGGCCATGTTTAGCACTGGTTGCCAGGGATTCTCTTTTTGAGAGAGGGAAAGCAAAATGAATGGAAGT  
ACCCAGCTGGAGGTTTCAGGGCTTCTGGAGGATGCTCTCGCATAGCTCGAGGTCTCTGCCACCTCTTCTCTCC  
AAGGAAAATGAGGACTGCCCTTCCCCCTGCAGGATTGGCCCCCAGCCTGCGCATGCACCCTCCTCTTGCCCAAG  
TGGGGAGCACAGAGGCGGAGAGGAATCCCTTACCACACCCACGGCCCAGCTTGCTCACGAGTGTACCTCTGTGA  
CGGTCACCACTGCTCCCTTGGAGGGCCACTTGAGTTACTGTTGCTTCCTCGCCTGCTGGCTTGATGAGCACCGAT  
GGTGGGATCTGACCCCGAGGGGCAGAGCTGTGGTGACTGAGGACTGGACTGTGGTGACCATGCCGATTTGCTCA  
GGGAGAACGTTGCAATGCACCCAGCAGCTCCTGGCTCTGCAGGCGGCACAGCCTGGGGCCCTGTGATCCTCTGGT  
TTCTTCCATTGGGGCGGAGTCGGGGGTGGAGGGAGCTGGCCACAACCCACTGCTCTGATGGGTGGTTTGTCCAAG  
GATGCTGAATGTAATGCCTGGTCAATGTGGAAGCCATGAGGTTGCCAGGGAAAGCCTCCAAAAGCTGGGATGCT  
TGAGGGTATCCAAGTTGAAAAAGACAAAATCTGACCATCAGCCAGTGACAGTCCTGGCAAATGAAGGTGGGGCGG  
GGCAGTGAGGGGTGGGAGAAGGTGAATGATTATTCCACCCCGAGGTTTGCTGGGGTGAGGGGAAGAATCGA  
TGCTGCTTTGGGAACTGAAGGTTTTTCTGTTGGGAAGGCCCTCTTGGTTTTGGAGAGAAAGACAAGTTATGAGTA  
GCTGCTACCCTGGAACGGTGGGCAGAGAGCCTACTAGGAAATGTGCAGAATAAACTATTTTTTGAAGGACACAAA  
AAAAAAAGGGGG

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**FIGURE 28**

MRSIRRWSYEMFRNERAIRFVVMVTPEDLKANA EYIKMADHYVPVPGGPNNNNYANVELILDI AKRIPVQAVWAG  
WGHASENPKLP ELLLLKNGIAFMGPPSQAMWALGDKIASSIVAQTAGIPTLPWSGSGLRVDWQENDFSKRILNVPQ  
ELYEKGYVKD VDDGLQAAEEVGYPVMIKASEGGGKGIRKVN NADDFPNLFRQVQAEVPGSPIFVMRLAKQSRHL  
EVQILADQYGN AISLFGRDCSVQRRHQKII EEAPATIATPAVFEHMEQCAVKLAKMVGYSAGTVEYLYSQDGSF  
YFLELNPR LQVEHPCTEMVADVNLPA AQLQIAMGIPLYRIKDIRMMYGVSPWGDSPIDFEDSAHVPCPRGHVIAA  
RITSENPDEGFKPSSGTVQELNFRSNKNVWG YFSVAAAGGLHEIADSQFGHCF SWGENREEAISNMVVALKELSI  
RGDFRTTVEYLIK LLETESFQMNRI DTGWLDRLIAEKVQAERPDTMLGVVCGALHVADVSLRNSVSNFLHSLERG  
QVLP AHTLLNTVDVELIYEGVKYVLKVTRQSPNSYVVMNGSCVEVDVHRLSDGGLLLSYDGSSYTTYMKEEVDR  
YRITIGNKTCVF EKENDP SVMRSPSAGKLIQY IVEDGGHV FAGQCYAEIEVMKMVMTLTAVESGCIHYVKRPGAA  
LDPGCVLAKMQLDNP SKVQQAELHTGSLPRIQSTALRGEKLRHVFHYVLDNLVNMNGYCLPDPFSSSKVKDWRA  
IDENLRDPSLPLELQDIMTSVSGRIPP NVEKSIKKEMAQYASNITSVLCQFPSQQIANILDSHAATLNRKSERE  
VFFMNTQSIVQLVQRYRSGIRGHMKA VVMDLLRQYLRVETQFQNGHYDKCVFALREENKSDMNTVLNYIFSHAQV  
TKKNLLVTMLIDQLCGRDPTLTDELLN ILTELTQLSKTTNAKVALRARQVLIASHLPSYELRHNQVESIFLSAID  
MYGHQFCIENLQKLILSETSFIDVLPNFFYHSNQVVRMAALEVYVRRAYIAYELNSVQHRQLKDNTCVVEFQFML  
PTSHPNRGNIPTLNRMSFSSNLNHYGMTHVASVSDVLLDNSFTPPCQRMGMV SFRTFEDFVRIFDEVMGCFSDS  
PPQSPTFFPEAGHTSLYDEDKVPRDEPIHILNVAIKTDCDIEDDRLAAMFREFTQQNKATLVDPWD PAPYFPFGCTK  
DFRKQVNYEVD RRFHREFPKFFTFRARDKFEEDRIYRHLEPALAFQLELNMRNFDLTAHSMCNHKMHLYLGA AK  
VEVGTEVTDYRFFVRAIIRHSDLVTKEASFEYLQNEGERLLLEAMDELEVA FNNTNVRTDCNHIFLNFVPTVIMD  
PSKIEESVRYMVMRYG SRLWKLRVLQAEVKINIRQTTTGS AVPIRLFITNESGYLLDISLYKEVTD SRSGNIMFH  
SFGNKQGPQHGM LINTPYVTKGSCSRPKRFQAQTLGTTYIYDFPEMFRQALFKLWGSPDKYPKDILTYTELVLDS  
QGQLVEMNRLPGGNEVG MVAFKMRFKTQEYPEGRDVIVIGNDITFRIGSFGPGEDLLYL RASEMARAE GIPKIYV  
AANSGARIGMAEEIKHMFHVAWVDPEDPHKGFKYLYLTPQDYTRISSLNSVHCKHIEEGGESRYMITDIIGKDDG  
LGVENLRGSGMIAGESSLAYEEIVTISLVTCRAIGIGAYLVRLGQRV IQVENSIIILTGASALNKVLGREVYTSN  
NQLGGVQIMHYNGVSHITVPDDFEGVYTILEWLSYMPKDNHSPVPIITPTDPI DREIEFLPSRAPYDPRWMLAGR  
PHPTLKGTWQSGFFDHGSGFKEIMAPWAQTVVTGRARLGGIPVGVI AVETRTVEVAVPADPANLDSEAKIIQQAGQ  
VWFPSDAYKTAQAIKDFNREKLPLMIFANWRGFSGGMKDMYDQVLKFGAYIVDGLRQYKQPILIIYIPPYAELRGG  
SWVVIDATINPLCIEMYADKESRGGVLEPEGTVEIKFRKKDLIKSMRRIDPAYKKLMEQLGEPDLSDKDRKDLEG  
RLKAREDLLLP IYHQVAVQFADFHDTPGRMLEKGVISDILEWKTARTFLYWRLRRLLEDQVKQEILQASGELSH  
VHIQSM LRRWFVETEGAVKAYLWDNNQVVVQWLEQHWQAGDGPRSTIRENITYLKHDSVLKTIRGLVEENPEVAV  
DCVIYLSQHISPAERAQVVHLLSTMDSPAST

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**FIGURE 29**

GGCACGAGGGCCCCGGCGGCAGGTCCCAGCCCCGGGGCTAGAGACCGAGGGCCGGGGTCCGGGCCCGGGCGGCGGGAC  
CCAGGCGGTTGAGGCTGGTCAGGAGTCAGCCAGCCTGAAAGAGCAGGATGATCTTGATGTGGTTAACATGTTTG  
TGATTGCGGGCGGCACGCTGGCCATCCCAATCCTGGCATTGTGGCTTCATTTCTTCTGTGGCCTTCAGCACTGA  
TAAGAATCTATTATTGGTACTGGCGGAGGACATTGGGCATGCAAGTCCGCTATGTTACCATGAAGACTATCAGT  
TCTGTTATTCCCTTCGGGGCAGGCCTGGGCACAAACCCTCCATCCTCATGCTCCACGGATTCTCTGCCCACAAGG  
ATATGTGGCTCAGTGTGGTCAAGTTCCTTCCAAAGAACCTGCACTTGGTCTGCGTGGACATGCCAGGACATGAGG  
GCACCACCCGCTCCTCCCTGGATGACCTGTCCATAGATGGGCAAGTTAAGAGGATACACCAGTTTGTAGAATGCC  
TGAAGCTGAACAAAAACCTTTCCACCTGGTAGGCACCTCCATGGGTGGCCAGGTGGCTGGGGTGTATGCTGCTT  
ACTACCCATCGGATGTCTCCAGCCTGTGTCTCGTGTGTCTGCTGGCCTGCAGTACTCAACTGACAATCAATTTG  
TACAACGGCTCAAAGAACTGCAGGGCTCTGCCGCCGTGGAGAAGATTCCCTTGATCCCGTCTACCCAGAAGAGA  
TGAGTGAAATGCTTCAGCTCTGCTCCTATGTCCGCTTCAAGGTGCCCCAGCAGATCCTGCAAGGCCTTGTCGATG  
TCCGCATCCCTCATAACAATTCTACCGAAAGTTGTTTTGGAAATCGTCAGTGAGAAGTCCAGATACTCTCTCC  
ATCAGAACATGGACAAGATCAAGGTTCCGACGCAGATCATCTGGGGGAAACAAGACCAGGTGCTGGATGTGTCTG  
GGGCAGACATGTTGGCCAAGTCAATTGCCAACTGCCAGGTGGAGCTTCTGGAAAACCTGTGGGCACTCAGTAGTGA  
TGGAAGACCCAGGAAGACAGCCAAGCTCATAATCGACTTTTGTAGCTTCTGTGCACAACACAGACAACAACAAGA  
AGCTGGACTGAGGGCCCCGACTGCAGCCTGCATTCTGCACACAGCATCTGCTCCCATCCCCAAGTCTGACGCAGC  
CACCCTCTCAGGGATCCTGCCCCAAATGCGGTTCGGAGCGCCAGTGACCCTGAGGAAGCCCGTCCCTTATCCCTG  
GTATCCACGGTTCCCCAGAGCTTTGGGGACCACGCGAAAACCTCCAAGATATTTTTCACAAAATAGAACTCATA  
TGGAACAAAATAAGAAACCCAGCCATGAAATCTACCATGAAGTCTTCAAGTTCATGTCACTGAGAAGCTTGTC  
AAAGCAGCCACCTTGACCATAATTAAATCAAGGACATTTCTTTGAGACATTCCTTATAGTTGGAGACTCAAGA  
TATTTTTGTTGCATCAGGTGTATTCCCTTGATGGGCAGTGGCTTTTATAGGAGCATTAGTCCTCATTGCTGAA  
CCCTGTTGTTTAGGTCTAATTTAAGTTTTACATAGAGACCCATGTATGACTGCAGCCATTGGCTGCAAGACCAG  
GGAGGAAAGTGGCAAGCTGTAGAAAATGTTTACACGCATGGAGGGGCATTGCTCTAGCCCTCAGAGCGTCCGGAG  
CAGCAGGGTACATGGGTGGGAGGTTTATTACAGCACCACCAAGTCAGGTATGTTCTGAGTGAACCCACAGCAGTCG  
CAGAATGAGCACCTGGCAGGGTGGGTTTCTAGGAATAATTTATTATTTTTTAAAAATAGGCCTAATAAAGCAATA  
ATGTTCTAGACATCTGTCTAAGTAATCAGACTCAGGTTCACACACAAGCAACAACCTCGTGGGCCTCTTTTCTAT  
TTCAATGTGCTACTAAGAACCCTTGATGTAACTACTAGTTAGTTAATGAATTCTGTGAATTCTGTGAAGAGTA  
ATGTGATTGAAAATAAGTCTAAACAGCTGTAAAAGTGACCACAATGACATGAAATAAATTTAATAAGTCTAGATC  
AGCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 30**

MDLDVVNMFVIAGGTLAIPILAFVASFLLWPSALIRIYYWYWRRTLGMQVRYVHHEDYQFCYSFRGRPGHKPSIL  
MLHGFSAHKDMWLSVVKFLPKNLHLVCVDMPGHEGTTRSSLDDLSIDGQVKRIHQFVECLKLNKKPFHLVGTSMG  
GOVAGVYAAYYPSDVSSLCLVCPAGLQYSTDNQFVQRLKELQGSAAVEKIPLIPSTPEEMSEMLQLCSYVRFKVP  
QQILQGLVDVRIPHNNFYRKLFLFLEIVSEKSRYSLSHQNMDDKIKVPTQIIWGKQDQVLDVSGADMLAKSIANCQVEL  
LENCGHSVVMERPRKTAKLIIDFLASVHNTDNNKKLD

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**FIGURE 31**

AAGGAAGTTTGCCTCTGGTACCACCTTGGGACTAAGTGTATACCCAATAAGTCCCTTCATCTCCCTGGACCCTG  
CCTTCAATCATCCCTCCTCTTGACGGTCTCCAACATGCTACCGGTGATAGTGGGCCCATAGTAATGGGCTCCCA  
CTTGCTCTCCATCACCATGTGGTTTCCCTTGGCCCTCATCATCACCACCATCTCCCACTGTGGCTACCACCTTCC  
CTTCCTGCCTTCGCCTGAATTCCACGACTACCACCATCTCAAGTAAGGACCTTCTCCCCACAATGGGTCCCTAGG  
CAACAACCATCACCTCCCTCCTTAAGCTTCTGATAGCAGGCACTGGTATCTCAGTTTACATGTGAGTGCTAGTT  
GGGGAAGAGGTCTGATGGCTGGGAAAATAACCACACTGGGATGACCTTACTCTTTTCTCTGAAATTGGGTCCCT  
CCTCCAACCTGGGGGTTTTAAACCTATATTTGGACTCTGGGCCCTTTGAATAAGCTCTGGACATTCTCTTTAGAAA  
AGTACATATATGCATAAACTCCTGCAGGCAATCACAAGTAAGTCATGTATCTCTGAAAGCCCCAGACTTTTTCA  
AGTGTAGTCTACAAACCTCCTATACCAGAATCACCTGAGATGCTTGTTTTAAATATAGGCTCTTGAATTCCACTC  
CAAATATGCTGAACTAAGGTATCTGGGGGAGCAGGGCCTGGAAACCTGCATTTTAGTTAAGTGTTCCAGGGGATT  
CTGATGCTGGTGATCTCATACCTGAAGAAGCCTAGTTCTGCTAGAGATTCTCAGACTGTGGGCATCAATCACATA  
GCAAGCTTTTTCAAAGGAGGACTCCAGATACGGCAAATTGCAGGTTTGGAGTGGCCCCGGGAGATGCATTGGTAG  
CAACTCCCCAGCTTATTTCTGATGCAGATGGTCAGGATGGTGGTGACAGGTGTGGGGTAGGAGGGCTGAGAAATGT  
GTGAGGCTGGCACAAATGAAATGGGATCTGCACGGAAGCCTCCAGCATGGGCACTGCAGTGCCGTCTCTCTCTT  
CTAGGTTCAACCAGTGCTATGGGGTGCTGGGTGTGCTGGACCACCTCCATGGGACTGACACCATGTTCAAGCAGA  
CCAAGGCCTACGAGAGACATGTCTCTGCTGGGCTTACCCCGCTCTCTGAGAGCATCCCAGACTCCCCAAAGA  
GGATGGAGTGAGAGACAGCCTAAGTGTCTATCCTGGCTGTCCCTCAGCCATGGGATGCAGACACGGCTTCTCTGATT  
GCACCTAACAATTTGCCTCCTTCGGCCACACGCCCTAATGATGGCACCACCAGGGTAGAGGGAAGGTGGGCTTCC  
CGGAAAAGCAGGGCCAAGGATGAGGCTTTCTTCAAACCTACTGCCCTTGATGTCCCTCAATGGGATCAGGAGTTAG  
CTTAAGAAAAAGGAAAACACAGCTCCCCAGACTGGAGGCTGGTCAGAGGGAGGAGACCCCTGGTCTCTGCTGTG  
GAAGGAGAGGGGTTACAGCCCAGATAACTCCTTTGTGGCCTGGGCAGGATGCAGAGAATGACAAGGCTGAAAGGA  
GGGGGACTGGAGGCTGCCTGGCTCCAGCGAGAGCTCCTTCTGGGACCAGAGGGTGGGACGGCCAGGTATCACTTT  
GCCCCCTTCTGCCCCAAAAGGCTTTACATACCCGACTCAGGCCAGAGCCAAGACACCCTGGCAAATCATTATAG  
GTCTCAATTCATGACATACCAGATGCCAGTCGCCACTTCACCCAACACACACACAAACATACACACACCAAACAC  
TCTGAGTGAGTGGTAAAGGCCCGTTTTTACTCTGGCCACCGCAAACAAAAGGTTTCCCTCTGTGGGGGAGAAA  
AAGAAATCCAGGAGCTCCTCCCTGGATTAAACCAACGAGGTGCAGACCAAACCTTTAACACCTTTAGCCTTATGT  
GGAAACCAAAAACCAACTGCTGGGAAACTGTGAAAAGCCCTTTTACCCACAAGGGGAGGGGTCAAAGTTGCTGCC  
CTTTGGGGACACCCGAGACCCCTAATTAGCCTATCTGAATGAGGACCAAAGGTTAGAGCCCTCTTTCTCCCCGAA  
GAAAGAGCCCGGAAAAACATGGCAGAGCAAAGAGCAAAATCCTTTCTCCCCGAATGCTTTACCAGTTTCTCAGC  
AACATTTATTCAAGATGATTTTTTACCAGGAACCTTATCAAAGGCAAAACCACAGCTGCTTGGGTGAAAGTCCCCA  
TCCTGGCCTCCTCTCAGCCGCCAGACATGGCCAGGAACCTGTGGTTCCCAAGAACAAATTTAAAGATCACTCTTT  
GATTTGAAAGACCACCATTATCATTTTACTAAATTCTTATATATACTTGTGCCCTTTTCCAACCTTTCAGTTCTCTT  
AAGAAAAACATCCACTGTAGCTTTATAAAATACCTTAGTATCAGCTAGGTCCAAGTCTCCAGGCAGGACTATCAA  
AATGGACTCCTTCTTCTATCAGCTCTAGAACCCAGAGGACTTGCCAGTAGGCCAGCTGAGCACTTACCAGGC  
AGCATCTCCCTGGCCTTCCACAGTCTCGCCTGTCTGTCTCTGGCCTTGGTGGACCTGGCTCCCTCCCTAGGAGGC  
TTTTGCCCTCAGCTTGAATACAGTTCTTGGTGCATCAAAGCTGTAAAGTTCTCAGCTGCTGGCCTGCACTCATCAC  
CTCTTCTACAAAATAAACATTTGGAAAAAAGTCCATCTTCAATATGCTTAAAGAGAAAGGTAGGAGATAAGGAGA  
AAGAACAGATACGGTTTTTTTTCCCTTTAAGGCCTTTAGATTTTGAGGTACTGTAAAGGGGCCTAGAAGGACAAAA  
GGCTTTTCAATTCCTCTTCTTTTGGCAGGCAGGTTATCAGTCTTGGCAGAAGGGGCCAGCCCTATCCTTTTCTG  
TATCAAAACAAAATCCTTGAGGTTGGTATACAAGTTAAGGCTGAAAAAAGGCCTTAAATTCCCAGTAAAGAATGTG  
AAAGCAAGCATGTAAAATAAATGGTCTTCATGAAAAAAGGCTTAAATTTCCAGTAAAGAATGTG



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**FIGURE 32**

MKGEAGHMLHNEKSKQEGHIWGSMTAFILGSGLLSFVAFWNSVTWHLQRFWGASGYFWQAQWERLLTTFEGKE  
WILFFIGAIQVPCLEFFWSFNGLLLVDDTTGKPNFISRYRIQVGKNEPVDPVKLRQSIRTVLEFNQCMISFPMVVFL  
YPFLKWWRDPCRRELPTFWFLELAIFTLIEEVLFYYSHR

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FIGURE 33A

GGAGCTGGGGATCCCCGCTCTCCTGGACCCCAATGACATGGTCTCCATGAGCGTCCCTGACTGCCTCAGCATCAT  
GACCTATGTGTCCAGTATTACAACCACTTCTGCAGTCTTGGCCAAGCTGGTGTCTCGCCACCCAGAAAGGGCCT  
TGCACCTGTTCCTCCGCGTCTGTAGCACCCACTCCAGTGGAAATCAGAAGATGTGGCTCAGGGCGAGGAGCTCTC  
CTCAGGCAGCCTGTGAGAGCAGGGCACCGGCCAGACCCCAAGCAGCAGCTGCGCAGCCTGCCAGCAGCATGTGCA  
CTTGGTGCAGCGCTACCTGGCTGACGGCAGGCTGTACCATCGCCACTGCTTCCGGTGTGCGCGGTGCTCCAGCAC  
CCTGCTCCCTGGGGCTTATGAGAATGGGCCTGAGGAGGGCACCTTTGTGTGTGCAGAACTGTGCCAGGCTGGG  
CCCGGGGACACGGTCGGGGACAGGCCTGGGCCCTTCTCACAGCCAAAGCAGCAGCACCAGCAGCAACTCGCAGA  
AGATGCCAAAGGATGTTCCAGGAGGCGGGCCCAAGCTCCAGTGCTCCTGCAGGGGCTGAGGCCGATGGACCCAAAGC  
CAGCCCTGAGGCCCGGCCGAGATCCCTACCAAGCCCCGGGTTCCTGGCAAACCTACAGGAGCTGGCCAGCCCCC  
TGCGGGCCGCCCCACCCCTGCCCCCAGGAAGGCCTCTGAGAGCACCACCCAGCACCACCCACGCCCCGGCCCCG  
CTCCAGTCTGCAGCAGGAGAACCTGGTGGAGCAGGCTGGCAGCAGCAGCCTGGTGAACGGGAGACTGCACGAACT  
GCCTGTCCCCAAGCCGAGGGGGACACCGAAGCCGTCCGAGGGGACACCAGCCCCCAGGAAGGACCCCCCATGGAT  
CACGCTGGTGCAGGCAGAACCAAGAAGAAGCCAGCCCCACTTCCCCCAAGCAGCAGCCCCGGGGCCACCAAGCCA  
GGACAGCAGGCAGGTGGAGAATGGAGGCACCGAGGAGGTGGCCAGCCGAGCCCAACGGCCAGCCTGGAGTCCAA  
ACCCTATAACCCCTTTGAGGAGGAGGAGGAGGACAAGGAGGAAGAGGCTCCAGCTGCACCCAGCCTGGCCACCAG  
CCCTGCCCCGGGCCACCCGAGTCCACACCCAAGTCCCTGCACCCCTGGTACGGCATCACCCCTACCAGCAGCCC  
CAAGACAAAGAAGCGCCCTGCCCCGCGCGCACCCAGCGCGTCCCCACTGGCTCTCCACGCCTCCCGCCTCTCGCA  
CTCGGAGCCGCCCTCGGCCACACCATCGCCAGCGCTCAGCGTGGAGAGCCTGTGCTCTGAGAGCGCCAGCCAGAC  
TGCAGGTGCAGAGCTTCTGGAGCCGCCAGCTGTGCCCAAGAGCTCCTCAGAGCCTGCTGTCCATGCCCCCTGGTAC  
CCCTGGAAACCTGTGAGCCTCTCTACCAACTCCTCCCTGGCCTCCTCTGGGGAAGTAGTGGAGCCTAGAGTGA  
ACAAATGCCTCAAGCCAGCCCTGGCCTTGCCCCCAGGACCAGGGGCGAGCTCAGGTCCCCAGCCAGCCAAGCCCTG  
CAGTGGCGCCACCCCAACGCCTCTCTTGTGGTGGAGACAGGAGCCCGGTGCCTTCCCCTGGAAGCTCGTCCCC  
ACAGCTGCAGGTAAAGTCTCTCTGCAAGGAGAATCCTTTTAACCGGAAGCCATCACCTGCAGCGTCCCCAGCCAC  
AAAGAAGGCCACCAAGGGATCCAAGCCAGTGAGGCCACCTGCCCCCTGGACACGGCTTTCCACTCATCAAACGCAA  
GGTCCAGGCTGACCAAGTACATCCCTGAGGAGGACATCCATGGAGAGATGGATACCATTGAGCGCCGGCTGGATGC  
CCTGGAGCACCGTGGGGTGTGCTGCTGGAGGAGAAGCTGCGTGGCGGCCGTGAATGAGGGCCGTGAGGATGACATGCT  
GGTGGACTGGTTCAAGCTCATCCACGAGAAGCACCTACTGGTGGCGGAGAGTCCGAGCTCATCTATGTCTTCAA  
GCAGCAGAACCTGGAGCAGCGCCAGGCTGATGTGAGTATGAGCTCCGGTGCCTCCTCAATAAGCCAGAAAAGGA  
CTGGACGGAGGAGGACCGGGCCCGGGAGAAGGTGCTGATGCAGGAGCTTGTGACCCTCATTGAGCAGCGCAACGC  
TATCATCAACTGCCTGGATGAGGACCGGCAGAGGGAGGAAGAGGAAGACAAGATGTTGGAAGCCATGATCAAGAA  
GAAAGAGTTCCAGAGGGAGGGTGAACCTGAGGGCAAGAAGAAGGGGAAGTTCAAGACCATGAAGATGTTGAACT  
GCTAGGAAACAAACGTGATGCCAAGAGCAAGTCCCCCAGAGACAAGAGCTAACAGCAGCAGAGAAGCCAGTTGGGGA  
CTGCCCCCTCCTGGAGCAGCTCCTGGGCTGTGCTCTGTTTGAAGGGGGCGCCCTGCTCCCCCTCAGATCAGTCAGG  
AGGAAGATGACTAAGGGGAGGGATCCTCTGGGTGATGGCCTCTTCTCCTCAGGGACCTCTGACTGCTCTGGGCC  
AAAGAATCTCTTGTCTCTCTCCGAGCCCCAGGCAGCGGTGATTACAGCCCTGCCCCAACCTGATTCTGATGACTGC  
GGATGCTGTGACGGACCCAAGGGGCAAATAGGGTCCCAGGGTCCAGGGAGGGGCGCCTGCTGAGCACTTCCGCCC  
CTCACCTGCCCCAGCCCCCTGCCATGAGCTCTGGGTGGGTCTCCGCTCCAGGGTTCTGCTCTTCCAGGCAGGCC  
AGCAAGTGGCGCTGGGCCACACTGGCTTCTTCTGCCCCATCCCTGGCTCTGAGTCTCTGTCTTCTGTCTGTG  
CAGGCGCCCTTGGATCTCAGTTTCCCTCACTCAGGAACTCTGTTTCTGAAGTCTTCAAGTTAAGTTTGAAGTTTATG  
ACTGAGTGGCCTGTACTGTGACAGCTGAATGGGCCTGACGGGCAAATCCATCCCTCTCTCCCTCACAGTTCCAGG  
AGCGGCTTCCCTCGTCTCCCTTACTCCACAGGGAGCCTCCCTTGCCAGGACCAGGGCTGCGACGGCCATGCTGG  
GGCAGGTGAGTGTCTGTAGTGTCTCCAGTGCTGTCCCAGGCTGCAGTTCTGGTCCCTGGTTGTGAGGTAGG  
AAGGGTGCACCTGAAGCAGGTGCTCATCTCGTTTCTTAACGTTTATAGTCTGACCCCTCACTTAGGCTTTCTCT  
TGCCACCCCGGTCCAGGGAAGAGGCTCGCTCCCGCCCATGGTCATCACTGGTCTGTCTGCTCTGTTGTCTGTTCT  
TTCCCTGACTCCCTCCACCGAAGGCCTGATGGCTACTACCCCTCTGGGATGGCTATGGGAGAGGAGGTGAT  
GGGACCGCCACCTTTTCTGCAGGAAATGTGCCAGCAGCTCTTGGTCAAAGCACTGTTGCTATAAGCTATCTCT  
GGGATGCCTCTAGGCCCCCTTCCCTCTACACACCTCTGGGAAAAGATTACACTGTATTAAGCTCTCGAGGAGTTTC  
CTACCAATAAACAGACAACCTCAACTGCCAGTGCCCTGCAGCCTCGGGCCACAGCGGCAGCCTTGTTCCTTC

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**FIGURE 33B**

CCACCTGCCTCTGCCACACCTGGTGGCTGAACATCTCTGGTCGCCCAGAGGCCATGTTGGGGCCATCCTCCAAGA  
GGGATCTCTGCCCTCACCGCCTGCCACTGGGCAGGATCCCTTTCTCTGCAGGGAGAGGTGGCTCCTCGGCCATG  
CAGCCCCTGGCAGGCTCCTTCTAAACATGCCTGTTGACCTGGAGCTGGCGCCACCAACTCCAGGGCCTTTCCAGG  
GCCAGACAGGTAAACACGCATGAACCCGAGTGACAGCTCTGACGGGCTGTTTCGGTGTCAGGAGACAAAGCTGGCA  
GGGGCAGGGGTGAACTGGAGGCAAGTCAAGTCACCTGTGGCCTGTGGGGCTGAATGTGGGCCCCGGTGTGGCCAGA  
TCCTTTGTCTATAAGAAGCTAGAAAATCCAGATTTTATGTGTGTGTAATTTGTAAATGCTGAAAGCTAGCCTGAATT  
TTTTTTTTTTTTTTGAGACAGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCGCGATCTCAGCTCACTGC  
AGGCTCCGCTCCTGGGTTACGCCATCCTCCTGCCTCGGCCTCCTGAGCAGCTGGGACTACAGGCGCATGCTAC  
GACGCTGGCTAATTTTTTGTATTTTTAGTAGAGACGGGGTTTTACCGTGTTAACCAGGATGGTCTCGATCTCCT  
GACCTTGTGATCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCGGCCACTAG  
CCTGAATTTCAATCAAGGGTTGGCTGATACTGTGTGTCCAGGGTGGACTGGATTTGTCTGGGGGGTTCTCTGGT  
TTGCTGCCTCCTGACCACATGATGGGGCCTTCGAGGTGAGGACAAGTGTTCCTTAGATTGCACCTCTGCCC  
TCAGGTTCTTGAGGGTGTGTGGACACAGAGGCTTTCCATGGGATGTCCCTGAGCCGGCCCTTGATTGGGGCCTCA  
CCATTTACAGGGCCGTTTTATTCTGCAAACCGAAACTTGGGTGATGTGACCTGATGGGATTATGGGACTCCCTCC  
AGGTGCCCCGAGACAAGGTTGATATTTCCAAAATATTTTGGTGATTTAGTGGGACAAGCAAATGACAGAATACCGG  
AGAAGGCAGGGATCGTGGGTGTCAGGAGCCAGAGGGGAGGGGGACAGATGTGCTGTGTACAGGACAAGGTGTGAG  
GTGACTCCTTCCCAGCAGGGCCTCGCAGATGCACAAGCACGGAGCTGGTGGGTTTTGCCCAAGAAAGGTACGCG  
GCACATGCAGGGATTGGAATCCCAGGCCAGGGCTCTAGGTGCGTCCCACTTTTCATGTTTCTTTCTGTGGCCA  
TGGGTATAGTGAAAGACATAAAGCTAAAGCCAACTTTTAATCCTGAATGCACTGCTTGCCAGGTAAATGCCCTT  
GGTTGTGGTATCTTGTGAGACTTAGTTTTACAGAGGGATAATGAACCGTTGCAGAGGTTTATTGAGATCATT  
ACAGAGTGGAATTCAGCACCTGCCACTGCACTCCAGCCTGGGCGACAGAGCAAGACTCAGTCTCAAAAAAAAAA  
AAATTAGCTGGGCAGGGCATGGTGATGGTGCCTGTAATCCTAGCTACTTGGGAGGCTGAGGCATGAGAATTGCCT  
GAACCCAGGAGGTGGAGTTGCAGTGAGCCGAGATCGTGCCACTGTACTCCAGCCTGGGTGACAGCGCGAGACTC  
CGTCTCAAAAAAAGCTGGGTGTGGGGAACACCTGTGGTCCCAGCTATTCTGGAGACTGAGGCAGGAGGATTGCTT  
GAGCTCAGGAGTTCTGGCTGCAGTGAGCTATGATCATGCCACTGTATTACAGAATGGGTGACAGAATGAGAGCGA  
CACTGTCTCAAAAAAAAAAAAAAAAAAAGGCCGGGAGCGGTCGTTTGTGCCTGTAATCCCAACACTTTGGGAGGC  
CAGGGTGGGCGGATCACTTGAGGCCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAATCCCCATCTCTACTAA  
AAAAATTAAGTGGACATGGTGGTGGACACTTGTAATCCCAGCTACTCAGGAGGCTGACACATGAGAATTGCTTGA  
ACCCGGGAGGCGGAGGTTACAGTGAGCCGAGATAGCACCCTGCACTCCAACCTGGGCACAGAGTAAGGCTCTGT  
CTTT

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**FIGURE 34**

ELGIPALLDPNDMVSMSVPDCLSIMTYVSQYYNHFCSPGQAGVSPPRKGLAPCSPPSVAPTPVESEDVAQGEELS  
SGSLSEQGTGQTPSSTCAACQQHVHLVQRYLADGRLYHRHCFRCRRCSSTLLPGAYENGPEEGTFVCAEHCARLG  
PGTRSGTRPGPFSQPKQQHQQLAEDAKDVPGGGPSSAPAGAEADGPKASPEARQIPTKPRVPGKLQELASPP  
AGRPTPAPRKASESTTPAPPTPRPRSSLQQENLVEQAGSSSLVNGRLHELPVVKPRGTPKPSGTFAPRKDPPWI  
TLVQAEPKKKPAPLPPSSSPGPPSQDSRQVENGGTEEVAQPSPPTASLESKPYNPFEEEEEDKEEEAPAAPSLATS  
PALGHPESTPKSLHPWYGITPTSSPKTKKRPAPRAPASPLALHASRLSHSEPPSATPSPALSVESLSSESASQT  
AGAELEPPAVPKSSSEPAVHAPGTPGNPVSLSTNSSLASSGELVEPRVEQMPQASPGAPRTRGSSGPQPAKPC  
SGATPTPLLLVGDRSPVPSPGSSSPQLQVKSSCKENPFNRKPSAASPATKKATKGSKPVRPPAPGHGFPLIKRK  
VQADQYIPEEDIHGEMDTIERRDALEHRGVLLLEEKLRGGLNEGREDMLVDWFKLIHEKHLLVRRESELIYVFK  
QQNLEQRQADVEYELRCLLNKPEKDWTEEDRAREKVLQMELVTLIEQRNAIINCLDEDQREEEEDKMLEAMIKK  
KEFQREAEPEGKKKGKFKTMKMLKLLGNKRDAKSKSPRDKS

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**FIGURE 35**

AAAGGAAACACAAGTTGCTTTTGATAACACATGATGCAAAGAAAGAATTAGAAAGAATGAGCAATGAAGCCGGTA  
TAAATGACAAACAAGTGTCCAAAGGCCCAAGAAGTTACTACCAAAGCTTTCAAACAATATTGGTTTATCTTTAA  
AGACACATCCATAGCATACTTTAAAAATAAGGAACCTGAACAAGGAGAACCACAAGAAAACTAAATCTTAGAGG  
CTGCGAAGTTGTGCCCCGATGTAAATGTAGCAGGAAGAAAATTTGGAATCAAGTTACTAATCCCTGTGCCGATGG  
TATGAATGAAATGTATTTGAGATGTGACCATGAGAATCAATACGCCCAATGGATGGCTGCCTGCATGTTGGCATC  
GAAGGGCAAAACCATGGCAGACAGCTCCTACCAGCCAGAGGTCTCAACATCCTTTTCATTTCTGAGGATGAAAA  
CAGGAACCTCTGCATCTCAGGTGGCTTCCAGTCTCGAAAACATGGATATGAACCCAGAATGTTTTGTGTACCACG  
GTGTGCAAAAAGACACAAATCCAAACAGCTGGCCGCCCGGATCCTGGAGGCGCACCAGAACGTGGCCCAGATGCC  
CCTGGTCAAGCCAAGCTGCGGTTTCATCCAGGCGTGGCAGTCACTGCCTGAGTTTGGCCTCACCTACTACCTTGT  
CAGATTTAAAGGAAGCAAAAAAGATGACATTCTGGGAGTTTTCATATAACAGGTTGATTAAATTTGATGCAGCCAC  
CGGGATTCCAGTGACAACATGGAGATTCACAAATATCAAACAGTGGAATGTAACTGGGAAACCCGGCAGGTGGT  
CATCGAGTTTGACCAAAACGTCTTTACTGCTTTACCTGCCTGAGTGCAGATTGCAAGATTGTGCACGAGTACAT  
TGGCGGCTACATTTTCTTGTCCACCCGCTCCAAGGACCAGAATGAAACACTCGATGAGGACTTGTTCACAAATT  
GACCGGCGGTGAGGATTTGAAAACAAGCACGCGTGCTCGGCTCACACCAACAAGGCAAGCCAAAGGCGCCCCCTCCCC  
AGAGGGATCCCTAACGTGCCCAGCATGTAGATTCTGGACTAACAGACAACATACATTACCGCTGGTCACCCAGA  
TCCTCATTCAAACCCACTGCTGGCACATCCCTTTCCTTACTTTGCCCTGTGCTACCAGCCACGGAAGGAGCCTCT  
CTTGTTTTTTCTATAAATGGGTAGGCAGGAGAAAAGCAGGTGCCCTAAGATTGCTCTAAGGCCAGCATGTGGT  
TACAGTTCTCTGACTTGAGAACCTGCCAGGTGTATGGCTACAAGTTATCCTCGTGCTGATCTGTCTCATTACTA  
AGTCAATGGAGAAGACAGAAAGGTAAAAATCACGTGTAGCAAGAACAACCTCTATTTTCAAACTCAGGTATGAA  
ACGAAACGCCTGTCTTTCATGGAAGTCTTTTAGCTCCTGTCTTTTCAAATGGCAGAGGGAGTTTCTACACACA  
CTTTTTCCCTGGAGGCCAAGGTCTAGGGGTAGAAAGGGGAGGGGTGGGGCTACCAGGTAGCAGTTGACAACCCAA  
GGTCAGAGGAGTGGCCCTCAGTGTCTGTCCACAGTGATACCTGCCAAGATGACCACTGACCCACATCTGGTC  
TTAGTCATTGGTCTCCTCAGATTTCTGGGGCCACCTGCAAGCCCCATTCCATTCTACAGATCTCTCAGCCACCT  
GTAAGTCTTTGTGAAGATGTGGGTGACACAGGGGGACAGGAAAACCCATTTCTCAACCCAGATCCATGTCTCCA  
CTGCTTCTACTCTGGGTTGGGATTGAGGAAGACAGGCACAGTCTCTCTGTTTCATAGAAACACCTGCCAGTGTCA  
AGGATTCCAGTCAGGTGTCTATCCCAACTGGTCAGGGAGAGAAGGGCAGACCCATTCTCAAAGACCACCATGTTC  
AAGGTCTGACAGCTCCCCACTGGCTGCCCCCACAGGGGCTTTAGGCTGGTCTGGGTCTAGGGGAAGCGTCCCTCT  
TATCGCTGGTCTGTGTTCTCCTGGATTTGGTATCTATGTTGGTACGACTCCTGGCCTTTTATCTAAAGGACTTTG  
GCTTTTGTAAATCACAAGCCAATAATAGACTTTTTTCTCCCCCTCTGTTTTTTGCTGTGTCTCTGCTTTGAG  
ACTGCCTTGAGACAGTGTCTGCCCCTGAGAGAGTGAGCCAATTAACAGCTGCCTGAATTGTCAATTTTCCATTTTG  
TTTGTTAGAGGTGGGAGGGGTGGGTTTTGAGAAGGTCAAAAAGCAATACCAGAAGTAAAGGGAAATATCAGACAAT  
ATTTTATTATTTTTTCTATAGATGTTCTGCCACACAAAGAACTTGGGGTGTAAAGGATAAGGCAAAAGCTCCAATCC  
CATTTTTCAGTTCTCCTAGGATGCACCCCTCAGGGAGCCTGGCCAGAGTCCGAGGCCCGTGAGCGTCAGCTGTT  
GCTTTATTTTCCATCAAAGCCCTCTGAGAAGTGAGACCTCAGCAATTCCGGGAGCCACATAGAGACAGACTTGGC  
AAGGGACCCCTGGTTCTGAGCCAGTAGCTGCCATCTGGAATTCCTCTTTAGCCTCTCCTTAGAGGTGAATGT  
GAATGAAGCCTCCCAGGCACCCGCTGAATTTCTGAGGCCTTGCTTAAAGCTCAGAAGTGGTTTAGGCATTTGGAA  
AATCTGGTTTACATCATAAAGAACTTGATTTGAAATGTTTTCTATAGAAACAAGTGCTAAGTGTACCGTATTATA  
CTTGATGTTGGTCATTTCTCAGTCCTATTTCTCAGTTCTATTATTTTAGAACCTAGTCAGTTCTTTAAGATTATA  
ACTGGTCTTACATTAAAAATAATGCTTCTCGATGTGAGATTTTACCTGTTTGCTGCTGAGAACATCTCTGCCTAAT  
TTACCAAGCCAGACCTTCAGTTCAACATGCTTTCCTTAGCTTTTCATAGTTGTCTGACATTTCCATGAAAACAA  
GGAACCAACTTTGTTTTAACCAAACTTTGTTTGGTTACAGTTTTTCAAGGGGAGCGTTTCTTCCATGACACACAGCA  
ACATCCCAAAGAAATAAACAAGTGTGACAAAAA

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**FIGURE 36**

MNEMYLRCDHENQYAQWMAACMLASKGKTMADSSYQPEVLNILSFLRMKNRNSASQVASSLENMDMNPECFVSPR  
CAKRHKSKQLAARILEAHQNVAQMPLVEAKLRFIQAWQSLPEFGLTYYLVRFKGSKKDDILGVSYNRLIKIDAAAT  
GIPVTTWRFTNIKQWNVNWETRQVVIEFDQNVFTAFTCLSDCKIVHEYIGGYIFLSTRSKDQNETLDEDLFHKL  
TGGQD

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**FIGURE 37**

CTGAGACTCGAAACTGTCCCCAGGCCTTGGCCATGCTGATAAATATCTAGGCCCTACAGGAGTTCGTGTCCATG  
AACCAGTAAACGCAATTCCCTCAGCCTTAAAATCTAGCCACCGCACCCGGCCCCCTTCCTTCGTCTTAGTCAATC  
CTATCCACCTCTTCTTCCACCAGTCCCCTCACCTGATGGTCCCAACATTTTCATCATCCACCACCTCCTGGAGGG  
GGTACCCCGAGGTGCTCCGCTGGGGACTCTGCTCATTCTGGGGGTGCGGTTGACGGCTGGTTCGTGATCTTTCCCG  
TAATCTGTCCCCCTCTTACGGAACCTAGTCTCCGTTCTGTCCATGGCCTTCTTCTGGACACTTCTAGGATCCAGAA  
GAGTATGTTATCAATTCTCAAGCCTAGGAGAAGTCAGGAGTAGAGAACAGCTCTGAGAAGATACTGTTGTCCAAC  
TGATCTCCAGGCACCACGGAGTCCGGTCCCTCCAATCAGGAAGGTCGGAATCTCTGATGTCATCGTTTCATGCCAA  
CCTGGCAACCAGTTTGAAAAAAAACACATGTAAC TGCCAGGCTGATCTCTTGTCCTGGAGATCCTGGGTGAATGG  
TATCTCCTGCCACTGTCCCAACCTCAGACCATTGTCCAAAAGCATCTTCAGGGACTCCACATCCCTCTATTCCCT  
GTCCCAGCAGAGGCTGTGTCTCTCCACTCAAAGCCTGAAGCATGTTGGGGTCTCTTCGTCTCTGTACATGCCCA  
TTTCAGAGTCCAGTCTGGTGGGAGAGGGAACAGAGTGGGAAAGAAAACTAGGGTAAGCAGAAACGATGAAACCTT  
ATAAGAGTGAGAGTATCATGTACAAGAGTGAGATTATCATGTACAAGAGTGAGATTATCACGTACAAGAGATCCC  
AGGAATACTGACTTGATGAAAAAGTCACATCAGAGCACTCAGTTTGGCAGAGCTTTTCTGCCGAATGTTTACTCA  
CATTCACTGTCCGAGATTCTATACTGGGGGTACACACGTCTCTGCCCTAAGGCAATTTTGAGTCCAAGAGACAT  
TTTGAGGCCTAAAAATCATAGGAAACTGCCCCTGAGCTCACACATATTTCCAATGGTGTCCCCAGTTTCAGGGAA  
TCCATGGATTACCTAAGCCAGCCCCCTCCAGTTCGGCTAAGAAACTCTAGTCTATATATCAAGTTTGTATCATAT  
GTATTGCTCTGAACTCAGAAATTTCCCTTCCATTTATGGATTCTATGAATAAAATATCACATGTACAAAAAGACT  
AAGTCAAAAAATTTTCAGCTGTGCACGCCTCGAGCCGAA

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**FIGURE 38**

ETRNCPPGLGHADKYLGPVGVRVHEPSKRNSSALKSSHRTRPPSFVLVNPPIPPLLPVPSPDGPNISSSTTSWRG  
YPEVLRWGLCSFWGCG



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**FIGURE 39**

GGCACGAGCGCAACACAGCGCGCAGGGCAGGCGCGAGCTGGCCTCTGAGCCCCGGCCTCGGACCGCCCACTCCA  
CTCCCGGCACGCCCCGGTGCCGCCCTTCCGGCTCCAGTCCCCGGGCTCGGCCTCGGCGAGGTGTAATTCGCAGCGCG  
GGCCGGCCCCCGAGGCTCTCGGCGAGCGCGGCGCGGTAACAAGTGGGCGAGGATGCCGTACGAGATCAAGAAGGT  
GTTCCGCCAGCCTCCCGCAGGTGGAGAGGGGCGTCTCCAAGATCATCGGCGGCGACCCTAAGGGCAACAATTTTCT  
GTACACCAATGGAAAGTGCGTCATCCTAAGGAACATCGACAACCCAGCCCTTGCTGACATCTACACAGAGCACGC  
CCATCAGGTGGTGGTGGCCAAGTATGCGCCCAGCGGATTCTACATTGCCTCCGGAGATGTGTCTGGGAAGCTGAG  
GATCTGGGATACACGCAGAAGGAGCACCTGTTGAAGTATGAGTACCAGCCTTTTCGCTGGGAAGATCAAAGACAT  
TGCTTGGACTGAAGACAGTAAGAGGATCGCCGTGGTTCGGGGAAGGAAGGGAGAAGTTTGGAGCAGTCTTCCTCTG  
GGATAGTGGCTCTTCTGTGGGCGAGATTACAGGACACAACAAAGTCATCAACAGCGTGGACATCAAGCAGAGCCG  
GCCATACCGGCTGGCCACGGGAAGCGATGATAACTGCGCGGCATTCTTTGAGGGACCCCCATTCAAGTTCAAGTT  
CACAATTGGCGACCACAGCCGCTTTGTCAACTGTGTGCGATTCTCTCCTGATGGGAACAGATTGTGCCACAGCCAG  
TGCTGACGGCCAGATATACATCTATGACGGGAAGACTGGGGAGAAGGTGTGCGCGCTGGGCGGAAGCAAGGCCCA  
CGACGGTGGGATTTACGCAATTAGTTGGAGTCCCGACAGCACCCATTGCTTTCTGCTTCTGGGGACAAAACCTC  
CAAGATTTGGGACGTGACGCTGAAGTCCGTGGTCAGCACATTTCCCATGGGCTCCACGGTTCTGGACCAGCAGCT  
GGGCTGCCTATGGCAGAAGGACCACCTGCTCAGTGTCTCCCTGTCCGGGTACATCAACTATCTGGACAGAAACAA  
CCCCAGCAAGCCCCCTGCACGTATCAAGGGTCACAGTAAATCGATCCAGTGTCTGACGGTGCATAAAAAACGGCGG  
CAAGTCCTACATTTACTCTGGGAGCCACGACGGACACATTAATTACTGGGATTGAGAGACGGGGGAGAACGACTC  
CTTCGCTGGGAAAGGCCACACGAACCAGGTGTCCAGGATGACCGTGGATGAGTCGGGGCAGCTCATCAGCTGCAG  
CATGGACGACACCGTGCGGTACACCAGCCTCATGCTGCGGGACTACAGCGGACAAGGAGTTGTGAAACTGGACGT  
TCAGCCAAAGTGCCTAGCCGTGCGCCCCGGGGGATACGCCGTGGTGTGTGATTGGACAGATTGTCTCTGTGAA  
GGATCAGAGGAAGTGCTTCAGCATCGACAACCCCGGCTACGAGCCCGAAGTTGTGGCAGTGCACCCCGGCGGGGA  
CACGGTGGCAATTGGGGGTGTGGACGGCAACGTCCGCCTGTATTCCATCCTGGGCACCACGCTGAAGGATGAGGG  
CAAGCTCCTAGAGGCCAAGGGCCCCGTGACCGACGTGGCCTACTCCACGACGGCGCCTTCCTCGCGGTGTGCGA  
CGCCAGCAAGGTGGTCACAGTGTTCAGCGTTGCTGACGGCTACTCGGAGAACAATGTTTTTTATGGACACCATGC  
AAAAATCGTCTGCCTGGCCTGGTCCCCAGACAATGAACACTTTGCCTCCGGTGGCATGGACATGATGGTGTATGT  
TTGGACCCTGAGTGACCCGGAACACAGAGTCAAGATCCAAGATGCACACCGGCTGCACCATGTCAGCAGCCTGGC  
CTGGCTGGACGAGCACACGCTGGTCACGACCTCCCATGATGCCTCTGTCAAGGAGTGGACAATCACCTACTGAGG  
AGCCCCACCCCGCCTCTGGATGGACCGAATCAGGCACTAGAGTTTAACTGCAGCGGAACATGTCATTTCTCTAT  
TTCTGTGACGCGCCCCCATGCCCCACCCACCAAGAGGCAGGAGGGCCCACTCATGACCCTCGTCTCTGCAG  
GGTGTCTGTACACGTTCTTCTGAAAGCTTTAGACAGTAACAGTTTGCACATGAAAAATAAAGCGAGCACCTAAAC  
AATGTGTGGAGCATAACTAAAACCCACAGCCCAACCAACCTTGAGAATGCGAAACATTCCAGAGGCAGTAGCCT  
CCAAAGCACACAGAGCCCCCTGGCCCCGCGCGGCTCTCACTATCTGTCAGGGGAGGTGTACAGGTGAATGAGCC  
GGGGGGCTCATGTTCTGCTGCAGAACATTTCTGTACTAGTGAGAAAGAGGGAATATGCATTGCAGTTTACGAAA  
GCCGGAATTCTGTGTTGAACAGATGTCTGTCTCCCTAGTGTGTGACTCACACCTTGTGGCTGCCTTCAGAGCGCC  
ACCTCCAGATCAGATGGGGACACACAACCCCTGGATATGTTTCATTGTCAGATTTTGTGCTTGATTTTAAGAATG  
GAATTGTGGGTATCTTTCTTTTTTTTTTAATGTATCTTAACTGTTGCCTGTGAGTGTACAACTAGTGCCTTG  
ACGGCACCGTGTCCAAGTTTTTAGAACCTTGTTAGCCAGACCGAGGTGTCTGGTACCGTTTTACCATCATGC  
TTTGATGTTCCCTGTCTTTCCCTCTTCTGCTCTCAAGAGCAAAGGTTAATTTAAGGACAAAGATGAAGTCACTG  
TAAACTAATCTGTCATTGTTTTTACCTTCCTTTTCTTTTTCAGTGCAGAAATTAAAAGTAAGTATAAAGCACCGT  
GATTGGGAGTGTTTTTGCGTGTGTGGAATCACTGGTAAATGTTGGCTGAGAACAAATCCCTCCCCTTGCACTTGT  
GAAAACTTTGAGCGCTTTAAGAGATTAGCCTGAGAAATAATTAAATATCTTTTCTTTCAAAAAAAAAAAAAA  
AAAA

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**FIGURE 40**

MPYEIKKVFASLPQVERGVSKIIGGDPKGNNFLYTNGKCVILRNIDNPALADIYTEHAHQVVVAKYAPSGFYIAS  
GDVSGKLRIWDTTQKEHLLKYEQPFAGKIKDIAWTEDSKRIAVVGEKREKFGAVFLWDSGSSVGEITGHNKVIN  
SVDIKQSRPYRLATGSDDNCAAFFEGPPFKFKFTIGDHSRNVNCVRFSPDGNRFATASADGQIYIYDGKTGEKVC  
ALGGSKAHDGGIYAIWSPDSTHLLSASGDKTSKIWDVSVNSVSTFPMGSTVLDQQLGCLWQKDHLLSVSLSGY  
INYLDNRNPNPSKPLHVIKGHKSIIQCLTVHKNGGKSYIYSGSHDGHINYWDSETGENDSFAGKGHTNQVSRMTVDE  
SGQLISCSMDDTVRYTSLMLRDYSGQGVVKLDVQPKCVAVGPGGYAVVVCIGQIVLLKDQRKCFSIDNPGYEPEV  
VAVHPGGDTVAIGGVDGNVRLYSILGTTLKDEGKLLKAKGPVTDVAYSHDGAFLAVCDASKVVTVFSVADGYSEN  
NVFYGHHAKIVCLAWSPDNEHFASGGMDMMVYVWTLSDPETRVKIQDAHRLHHVSSLAWLDEHTLVTTSHDASVK  
EWTITY

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**FIGURE 41**

GCGGCGCGCGCTGCGGGCAGTGAGTGTGGAGGCGCGGACGCGCGGCGGAGCTGGAAGTCTGCAGCTGCTGCCGC  
CGCCGGAGGAACCTTGATCCCCGTGCTCCGGACACCCCGGGCCTCGCCATGGCTGACCAGCTGACTGAGGAGCAG  
ATTGCAGAGTTCAAGGAGGCCCTTCTCCCTCTTTGACAAGGATGGAGATGGCACTATCACCACCAAGGAGTTGGGG  
ACAGTGATGAGATCCCTGGGACAGAACCCCACTGAAGCAGAGCTGCAGGATATGATCAATGAGGTGGATGCAGAT  
GACCTTCCAGGGAACGGGACCATTGACTTCCCGGAGTTCCTGACCATGATGGCCAGAAAGATGAAGGACACAGAC  
AGTGAGGAGGAGATCCGAGAGGCGTTCGGTGTCTTTGACAAGGATGGGAATGGCTACATCAGCGCCGCAGAGCTG  
CGTCACGTAATGACGAACCTGGGGGAGAAGCTGACCGATGAGGAGGTGGATGAGATGATCAGGGAGGCTGACATC  
GATGGAGATGGCCAGGTCAATTATGAAGAGTTTGTACAGATGATGACTGCAAAGTGAAGGCCCGGGCAGCTG  
GCGATGCCGTTCTCTTGATCTCTCTCTTCTCGCGCGCGCACTCTCTCTTCAACACTCCCCTGCGTACCCCGGTT  
CTAGCAAACACCAATTGATTGACTGAGAATCTGATAAAGCAACAAAAGATTTGTCCCAAGCTGCATGATTGCTCT  
TTCTCCTTCTTCCCTGAGTCTCTCTCCATGCCCTCATCTCTTCTTTTGGCCTCGCCTCTTCCATCCACGTCTT  
CCAAGGCCTGATGCATTGATAAGTTGAAGCCCTCCCCAGATCCCCTTGGAGCCTCTGCCCTCCTCCAGCCCGGAT  
GGCTCTCCTCCATTTTGGTTTGTCTTCTTGTGTTGTCATCTTATTTTGGGTGCTGGGGTGGCTGCCAGCCTGTC  
CCGGGACCTGCTGGGAGGGACAAGAGGCCCTCCCCAGGCAGAAGAGCATGCCCTTTGCCGTTGCATGCAACCAGC  
CCTGTGATTCCACGTGCAGATCCCAGCAGCCTGTTGGGGCAGGGGTGCCAAGAGAGGCATTCCAGAAGGACTGAG  
GGGGCGTTGAGGAATTGTGGCGTTGACTGGATGTGGCCAGGAGGGGTGAGGGGGCCAACTCACAGAAGGGGAC  
TGACAGTGGGCAACACTCACATCCCCTGCGTGTCTGTTCTGAAACCATCTGATTGGCTTTCTGAGGTTTAGCTGG  
GTGGGGACTGCTCATTTGGCCACTCTGCAGATTGGACTTGCCCGCGTTCCTGAAGCGCTCTCGAGCTGTTCTGTA  
AATACCTGGTGCTAACATCCCATGCCGCTCCCTCCTCACGATGCACCCACCGCCCTGAGGGCCCGTCTTAGGAAT  
GGATGTGGGGATGGTTCGCTTTTGTAAATGTGCTGGTTCTCTTTTTTTTTTCTTTCCCTCTATGGCCCTTAAGACTTT  
CATTTTGTTCAGAACCATGCTGGGCTAGCTAAAGGGTGGGGAGAGGGAAGATGGGCCCCACCAGCTCTCAAGAGA  
AACGCACCTGCAATAAAACAGTCTTGTGCGCCAGCTGCCCAGGGACGGCAGCTACAGCAGCCTCTGCGTCTCTGGT  
CCGCCAGCACCTCCCGCTTCTCCGTGGTGACTTGGCGCCGCTTCCTCACATCTGTGCTCCGTGCCCTCTTCCCTG  
CCTCTTCCCTCGCCACCTGCCTGCCCCATACTCCCAGCGGAGAGCATGATCCGTGCCCTTGCTTCTGACTTT  
CGCCTCTGGGACAAGTAAGTCAATGTGGGCAGTTCAGTCGTCTGGGTTTTTTTCCCTTTTCTGTTCAATTCATCT  
GGCTCCCCCACCACCTCCCCACCCACCCCCACCCCTGCTTCCCTCACTGCCCAGGTGATCAAGTGGCTT  
TTCCTGGGACCTGCCAGCTTTGAGAATCTCTTCTCATCCACCTCTGGCACCCAGCCTCTGAGGGAAGGAGGGA  
TGGGGCATAGTGGGAGACCCAGCCAAGAGCTGAGGGTAAGGGCAGGTAGGCGTGAGGCTGTGGACATTTTCGGAA  
TGTTTTGGTTTTGTTTTTTTTAAACCGGGCAATATTGTGTTCAAGCTGTGAAGAAAAATATATATCAATG  
TTTTCCAATAAAATACAGTGACTACCTGA

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**FIGURE 42**

MADQLTEEQIAEFKEAFSLFDKDGDTITTKELGTVMRSLGQNPTEAELQDMINEVDADDLPNGTIDFPEFLTM  
MARKMKD TDSEEEIREAFRVFDKDGNGYISAAELRHVMTNLGEKLTDEEVDEMIREADIDGDGQVNYEEFVQMMT  
AK

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**FIGURE 43**

GCCCCACTCCCACCGCCAGCTGGAACCCTGGGGACTACGACGTCCCTCAAACCTTGCTTCTAGGAGATAAAAAGAA  
CATCCAGTCA**ATGG**GATAAAAAATGAGCTGGTTCAGAAGGCCAAACTGGCCGAGCAGGCTGAGCGATATGATGACATG  
GCAGCCTGCATGAAGTCTGTAACTGAGCAAGGAGCTGAATTATCCAATGAGGAGAGGAATCTTCTCTCAGTTGCT  
TATAAAAAATGTTGTAGGAGCCCCGTAGGTCATCTTGGAGGGTTCGTCTCAAGTATTGAACAAAAGACGGAAGGTGCT  
GAGAAAAAACAGCAGATGGCTCGAGAATACAGAGAGAAAAATTGAGACGGAGCTAAGAGATATCTGCAATGATGTA  
CTGTCTCTTTTGGAAAAGTTCTTGATCCCCAATGCTTCACAAGCAGAGAGCAAAGTCTTCTATTTGAAAATGAAA  
GGAGATTACTACCGTTACTTGGCTGAGGTTGCCGCTGGTGATGACAAGAAAGGGATTGTGATCAGTCACAACAA  
GCATACCAAGAAGCTTTTGAATCAGCAAAAAGGAAATGCAACCAACACATCCTATCAGACTGGGTCTGGCCCTT  
AACTTCTCTGTGTTCTATTATGAGATTCTGAACTCCCCAGAGAAAAGCCTGCTCTCTTGCAAAGACAGCTTTTGTAT  
GAAGCCATTGCTGAACTTGATACATTAAGTGAAGAGTCATACAAAAGACAGCACGCTAATAATGCAATTACTGAGA  
GACAACTTGACATTGTGGACATCGGATACCCAAGGAGACGAAGCTGAAGCAGGAGAAGGAGGGGAAAAT**TAACCG**  
GCCTTCCAACCTTTTGTCTGCCTCATTCTAAAATTTACACAGTAGACCATTTGTATCCATGCTGTCCCACAAATA  
GTTTTTTGTTTACGATTTATGACAGGTTTTATGTTACTTCTATTTGAATTTCTATATTTCCCATGTGGTTTTTATG  
TTTAATATTAGGGGAGTAGAGCCAGTTAACATTTAGGGAGTTATCTGTTTTCATCTTGAGGTGGCCAATATGGGG  
ATGTGGAATTTTTATACAAGTTATAAGTGTGGCATAGTACTTTTGGTACATTGTGGCTTCAAAGGGGCCAGTG  
TAAACTGCTTCCATGTCTAAGCAAAGAAAAGCTGCCTACATACTGGTTTGTCTGGCGGGGAATAAAAGGGATCA  
TTGGTTCAGTCACAGGTGTAGTAATTGTGGGTACTTTAAGGTTTGGAGCACTTACAAGGCTGTGGTAGAATCAT  
ACCCCATGGATACCACATATTAAACCATGTATATCTGTGGAATACTCAATGTGTACACCTTTGACTACAGCTGCA  
GAAGTGTTCCTTTAGACAAAGTTGTGACCCATTTTACTCTGGATAAGGGCAGAAACGGTTACATTCCATTATTT  
GTAAAGTTACCTGCTGTTAGCTTTTATTATTTTTGCTACACTCATTTTATTTGTATTTAAATGTTTTAGGCAACC  
TAAGAACAAATGTAAGTAAAGATGCAGGAAAAATGAATTGCTTGGTATTCTTACTTCATGTATATCAAGCAC  
AGCAGTAAAAACAAAACCCATGTATTTAACTTTTTTTTAGGATTTTTGCTTTTGTGATTTTTTTTTTTTTTTTT  
GATACTTGCTTAACATGCATGTGCTGTAAAAATAGTTAACAGGGAAATAACTTGAGATGATGGCTAGCTTTGTTT  
AATGTCTTATGAAATTTTCATGAACAATCCAAGCATAATTGTTAAGAACACGTGTATTAAATTCATGTAAGTGGA  
ATAAAAGTTTTATGAATGGACTTTTCAACTACTTTCTCTACAGCTTTTCATGTAAATTAGTCTTGGTTCTGAAAC  
TTCTCTAAAGGAAATTGTACATTTTTTGAATTTTATTCCCTATTCCCTCTTGGCAGCTAATGGGCTCTTACCAAG  
TTTAAACACAAAATTTATCATAACAAAAATACTACTAATACTACTGTTTCCATGTCCCATGATCCCCTCTCT  
TCCTCCCCACCCTGAAAAAATGAGTTCCTATTTTTTCTGGGAGAGGGGGGATTGATTAGAAAAAATGTAGTG  
TGTTCCATTTAAATTTTGGCATATGGCATTTTCTAACTTAGGAAGCCACAATGTTCTTGGCCCATCATGACATT  
GGGTAGCATTAACTGTAAGTTTTGTGCTTCCAAATCACTTTTTGGTTTTTAAGAATTTCTTGATACTCTTATAGC  
CTGCCTTCAATTTTGATCCTTTATTCTTTCTATTTGTCAGGTGCACAAGATTACCTTCCTGTTTTAGCCTTCTGT  
CTTGTACCAACCATTCTTACTTGGTGGCCATGTACTTGGAAAAAGGCCGATGATCTTTCTGGCTCCACTCAGT  
GTCTAAGGCACCCTGCTTCCTTTGCTTGCATCCACAGACTATTTCCCTCATCCTATTTACTGCAGCAAAATCTCT  
CCTTAGTTGATGAGACTGTGTTTATCTCCCTTTAAAAACCCTACCTATCCTGAATGGTCTGTCTATTGTCTGCCTTT  
AAAAATCCTTCCTCTTTCTCCTCCTCTATTCTCTAAATAATGATGGGGCTAAGTTATACCCAAAGCTCACTTTAC  
AAAAATTTTCCCTCAGTACTTTGCAGAAAACACCAAAACAAAAATGCCATTTTAAAAAAGGTGTATTTTTTCTTTTA  
GAATGTAAGCTCCTCAAGAGCAGGGACAATGTTTTCTGTATGTTCTATTGTGCCTAGTACACTGTAAATGCTCAA  
TAAATATTGATGATGGGAGGCAGTGAGTCTTGATGATAAGGGTGAGAACTGAAATCCC

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**FIGURE 44**

MDKNELVQKAKLAEQAERYDDMAACMKSVTEQGAELSNEERNLLSVAYKNVVGARRSSWRVVSSIEQKTEGAEEK  
QQMAREYREKIETELRDICNDVLSLLEKFLIPNASQAESKVFYLMKGDYYRYLAEVAAGDDKKGIQDQSQQAYQ  
EAFEISKEMQPTHPIRLGLALNFSVFYYEILNSPEKACSLAKTAFDEAIAELDTLSEESYKDSTLIMQLLRDNL  
TLWTSDTQGDEAEAGEGGEN

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**FIGURE 45**

GCGGAGCGTGTGAGCAGTACTGCGGCCTCCTCTCCTCTCCTAACCTCGCTCTCGCGGCCTACCTTTACCCGCCCCG  
CCTGCTCGGCGACCAGCGGGGATCCTCCCCAGCCGCAAGTCCACGAAGAAAGCAACGAATGAAAATTATGAAGA  
CAACGAGAAGTCAGACTCCTCCGGGTCGCGCTCCAGCTGCTTCGGCTTCGTGCGCTACTCTGTGAACTCCGGGGA  
GAGATCTCGAGTCAAGATTAAGACCTTAACCCACCAACCTGCCTGTTCCGGACACCCCCGGGCGGGCGCTGTCT  
GTCCCCCTTCTCCATCGCCCTCTCCAGAAAGCTCCGGTGCTTGGACCAGCTAGAGTCTGAGAAAGAGGAGAGGCG  
CGAACGCCACTCCAAAAAGAGAAGGGTTAAAGAGGGCAACCTTAACGATACGCTTGACTTTCTGTGGCTGGGAAC  
ACCTTCCACCAATGACCACCTCAGCAAGTTCCTCACTTAAATAAAGGCATCAAGCAGGTGTACATGTCCCTGCCTCA  
GGGTGAGAAAGTCCAGGCCATGTATATCTGGATCGATGGTACTGGAGAAGGACTGCGCTGCAAGACCCGGACCCCT  
GGACAGTGAGCCCAAGTGTGTGGAAGAGTTGCCTGAGTGGAATTTTCGATGGCTCCAGTACTTTACAGTCTGAGGG  
TTCCAACAGTGACATGTATCTCGTGCCTGCTGCCATGTTTCGGGACCCCTTCCGTAAGGACCCCTAACAAAGCTGGT  
GTTATGTGAAGTTTTCAAGTACAATCGAAGGCCTGCAGAGACCAATTTGAGGCACACCTGTAAACGGATAATGGA  
CATGGTGAGCAACCAGCACCCCTGGTTTGGCATGGAGCAGGAGTATACCCTCATGGGGACAGATGGGCACCCCTT  
TGGTTGGCCTTCCAACGGCTTCCCAGGGCCCCAGGGTCCATATTACTGTGGTGTGGGAGCAGACAGAGCCTATGG  
CAGGGACATCGTGGAGGCCATTACCGGGCCTGCTTGTATGCTGGAGTCAAGATTGCGGGGACTAATGCCGAGGT  
CATGCCTGCCCAAGTGGGAATTTTCAAGATTGGACCTTGTGAAGGAATCAGCATGGGAGATCATCTCTGGGTGGCCCCG  
TTTCATCTTGATCGTGTGTGTGAAGACTTTTGGAGTGATAGCAACCTTTGATCCTAAGCCCATTCCTGGGAAGT  
GAATGGTGCAGGCTGCCATACCAACTTCAGCACCAAGGCCATGCGGGAGGAGAATGGTCTGAAGTACATCGAGGA  
GGCCATTGAGAACTAAGCAAGCGGCACCAGTACCACATCCGTGCCTATGATCCCAAGGGAGGCCTGGACAATGC  
CCGACGCTAACTGGATTCCATGAAACCTCCAACATCAACGACTTTTCTGCTGGTGTAGCCAATCGTAGCGCCAG  
CATACGCATTCCCCGGACTGTTGGCCAGGAGAAGAAGGGTTACTTTGAAGATCGTCGCCCTCTGCCAACTGCGA  
CCCCTTTTCGGTGACAGAAGCCCTCATCCGCACGTGCTTCTCAATGAAACCGGCGATGAGCCCTTCCAGTACAA  
AAATTAAGTGGACTAGACCTCCAGCTGTTGAGCCCCCTCCTAGTTCTTCATCCCACTCCAACCTTCCCCCTCTCC  
CAGTTGTCCCGATTGTAACCAAGGGIGGAATATCAAGGTCGTTTTTTTTTTCATTCCATGTGCCCAGTTAATCTTG  
CTTTCTTTGTTTGGCTGGGATAGAGGGGTCAAGTTATTAATTTCTTACACCTACCCTCCTTTTTTTTCCCTATCA  
CTGAAGCTTTTTAGTGCATTAGTGGGGAGGAGGGTGGGGAGACATAACCACTGCTTCCATTTAATGGGGTGCACC  
TGTCCAATAGGCGTAGCTATCCGGACAGAGCACGTTTGCAGAAGGGGGACTCTTCTTCCAGGTAGCTGAAAGGGG  
AAGACCTGACGTACTCTGGTTAGGTTAGGACTTGCCCTCGTGGTGGAACCTTTTCTTAAAAGTTATAACCAACT  
TTTCTATTAAAAGTGGGAATTAGGAGAGAAGGTAGGGGTTGGGAATCAGAGAGAATGGCTTTGGTCTCTTGCTTG  
TGGGACTAGCCTGGCTTGGGACTAAATGCCCTGCTCTGAACACGAAGCTTAGTATAAACTGATGGATATCCCTAC  
CTTGAAAGAAGAAAAGGTTCTTACTGCTTGGTCCTTGATTTATCACACAAAGCAGAATAGTATTTTTATATTTAA  
ATGTAAAGACAAAAAACTATATGTATGTTTTGTGGATTATGTGTGTTTTGCTAAAGGAAAAAACCATCCAGGTC  
ACGGGGCACCAAATTTGAGACAAATAGTCGGATTAGAAATAAAGCATCTCATTTTGTAGTAGAGAGCAAGGGAAGT  
GGTCTTAGATGGTGATCTGGGATTAGGCCCTCAAGACCCTTTTGGGTTTCTGCCCTGCCACCCTCTGGAGAAG  
GTGGGCACTGGATTAGTTAACAGACGACACGTTACTAGCAGTCACTTGATCTCCGTGGCTTTGGTTTAAAAGACA  
CACTTGTCACATAGGTTTATAGATAAGAGTTGGCTGTTCAACTTGAGCATGTTACTGACAGAGGGGGTATTGGG  
GTTATTTTCTGGTAGGAATAGCATGTCACTAAAGCAGGCCTTTTGATATTAAATTTTTTAAAAAGCAAAATTATA  
GAAGTTTAGATTTTAAATCAAATTTGTAGGGTTTCTAGGTAATTTTTTACAGAATTGCTTGTTTGCTTCAACTGTCT  
CCTACCTCTGCTCTTGGAGGAGATGGGGACAGGGCTGGAGTCAAAACACTTGTAATTTTGTATCTTGATGTCTTT  
GTTAAGACTGCTGAAGAATTATTTTTTTTCTTTTATAATAAGGAATAAACCACCTTTATTCCTTCATTTTCATC  
TACCATTTTCTGGTTCTTGTGTGGCTGTGGCAGGCCAGCTGTGGTTTTCTTTTGCCATGACAACCTTCTAATTGC  
CATGTACAGTATGTTCAAAGTCAAATAACTCCTCATTGTAAACAACTGTGTAACCTGCCCAAAGCAGCACTTATA  
AATCAGCCTAACATAA

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**FIGURE 46**

MTTSASSHLNKGIKQVYMSLPQGEKVQAMYIWIDGTGEGLRCKTRTLDSEPKQVEELPEWNFDGSSTLQSEGSNS  
DMYLVPAAMFRDPFRKDPNKLVLCEVFKYNRRPAETNLRHTCKRIMDMVSNQHPWFGMEQEYTLMGTDGHPFGWP  
SNGFPGPQGPYYCGVGADRAYGRDIVEAHYRACLYAGVKIAGTNAEVMQAQWEFQIGPCEGISMGDHLWVARFIL  
HRVCEDFGVIATFDPKPIPGNWNAGAGCHTNFSTKAMREENGLKYIEEAIEKLSKRHQYHIRAYDPKGGGLDNARRL  
TGFHETSNINDFSAGVANRSASIRIPRTVGQEKKGYPEDRRPSANCDPFSVTEALIRTCLLNETGDEPFQYKN



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**FIGURE 47**

CCCGGCGGCGCCAACCGAAGCGCCCCGCTGATCCGTGTCCGACATGCTGCGCCGCGCTCTGCTGTGCCTGGCCG  
TGGCCGCCCTGGTGCGCGCCGACGCCCCGAGGAGGAGGACCACGTCCTGGTGCTGCGGAAAAGCAACTTCGCGG  
AGGCGCTGGCGGCCACAAAGTACCTGCTGGTGGAGTTCTATGCCCCCTGGTGCTGGCCACTGCAAGGCTCTGGCCC  
CTGAGTATGCCAAAGCCGCTGGGAAGCTGAAGGCAGAAGGTTCCGAGATCAGGTTGGCCAAGGTGGACGCCACGG  
AGGAGTCTGACCTGGCCCAGCAGTACGGCGTGCGCGGCTATCCCACCATCAAGTTCTTCAGGAATGGAGACACGG  
CTTCCCCCAAGGAATATACAGCTGGCAGAGAGGCTGATGACATCGTGAAGTGGCTGAAGAAGCGCACGGGCCCCG  
CTGCCACCACCCCTGCCTGACGGCGCAGCTGCAGAGTCCTTGGTGGAGTCCAGCGAGGTGGCTGTTCATCGGCTTCT  
TCAAGGACGTGGAGTCGGACTCTGCCAAGCAGTTTTTGCAGGCAGCAGAGGCCATCGATGACATACCATTTGGGA  
TCACTTCCAACAGTGACGTGTTCTCCAAATACCAGCTCGACAAAGATGGGGTTGTCTCTTTAAGAAGTTTGATG  
AAGGCCGGAACAACTTTGAAGGGGAGGTACCAAGGAGAACCTGCTGGACTTTATCAAACACAACCAGCTGCCCC  
TTGTTCATCGAGTTCACCGAGCAGACAGCCCCGAAGATTTTTGGAGGTGAAATCAAGACTCACATCCTGCTGTTCT  
TGCCCAAGAGTGTGTCTGACTATGACGGCAAACCTGAGCAACTTCAAAACAGCAGCCGAGAGCTTCAAGGGCAAGA  
TCCTGTTTCATCTTCATCGACAGCGACCACACCGACAACCAGCGCATCCTCGAGTTCTTTGGCCTGAAGAAGGAAG  
AGTGCCCGGCGCTGCGCCTCATCACCCTGGAGGAGGAGATGACCAAGTACAAGCCCGAATCGGAGGAGCTGACGG  
CAGAGAGGATCACAGAGTTCCTGCCACCGCTTCTGAGGGGCAAAATCAAGCCCCACCTGATGAGCCAGGAGCTGC  
CGGAGGACTGGGACAAGCAGCCTGTCAAGGTGCTTGTGGGAAGAACTTTGAAGACGTGGCTTTTGATGAGAAAA  
AAAACGTCTTTGTGGAGTTCTATGCCCCATGGTGTGGTCACTGCAAACAGTTGGCTCCCATTTGGGATAAACTGG  
GAGAGACGTACAAGGACCATGAGAACATCGTCATCGCCAAGATGGACTCGACTGCCAACGAGGTGGAGGCCGTCA  
AAGTGACAGCTTCCCCACACTCAAGTTCTTTCTGCCAGTGCCGACAGGACGGTCATTGATTACAACGGGGAAC  
GCACGCTGGATGGTTTTTAAGAAATTCTTGAGAGCGGTGGCCAGGATGGGGCAGGGGATGATGACGATCTCGAGG  
ACCTGGAAGAAGCAGAGGAGCCAGACATGGAGGAAGACGATGATCAGAAAGCTGTGAAAGATGAAGTGAATACG  
CAAAGCCAGACCCGGGCGCTGCCGAGACCCCTCGGGGGCTGCACACCCAGCAGCAGCGCACGCCTCCGAAGCCTG  
CGGCCTCGCTTGAAGGAGGGCGTCGCCGGAACCCAGGGAACCTCTCTGAAGTGACACCTCACCCCTACACACCG  
TCCGTTACCCCCGTCTCTTCTTCTGCTTTTCGGTTTTTGAAAAGGGATCCATCTCCAGGCAGCCACCCTGGT  
GGGGCTGTTTCTGAAACCATGATGTACTTTTTTCATACATGAGTCTGTCCAGAGTGCTTGCTACCGTGTTCCGA  
GTCTCGCTGCCTCCCTCCCGCGGGAGGTTTTCTCTCTTTTTGAAAATCCGTCTGTGGGATTTTTAGACATTTTT  
CGACATCAGGGTATTTGTTCCACCTTGCCAGGCCTCCTCGGAGAAGCTTGTCCTCCGTGTGGGAGGGACGGAGC  
CGGACTGGACATGGTCACTCAGTACCGCTGCAGTGTGCCATGACTGATCATGGCTCTTGCATTTTTGGGTAAA  
TGGAGACTTCCGGATCCTGTCAGGGTGTCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCC  
GCACAGGCCTGGGCCTTCCCTTCCCTCAAGCCAGGGCTCCTCCTCTGTCGTGGGCTCATTTGTGACCACTGGCC  
TCTCTACAGCACGGCCTGTGGCCTGTTCAAGGCAGAACCACGACCCCTTGACTCCCGGGTGGGGAGGTGGCCAAGG  
ATGCTGGAGCTGAATCAGACGCTGACAGTTCTTCAGGCATTTCTATTTTCACAATCGAATTGAACACATTGGCCAA  
ATAAAGTTGAAATTTTACCACCAAAAAAAAAAAAAAAAAA

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**FIGURE 48**

MLRRALLCLPWXALVRADAPEEEDHVLVLRKSNFAEALAAHKYPPVEFHAPWCGHCKALAPEYAKAAGKLKAEGS  
EIRLAKVDATEESDLAQYGVRGYPTIKFFRNGDTASPKEYTAGREADDIVNWLKKRTGPAATTLPGAAAESLV  
ESSEVAVIGFFKDVEDSAKQFLQAAEAIDDIPFGITSNSDVFSKYQLDKDGVVLFKKFDEGRNNFEGEVTKENL  
LDFIKHNQLPLVIEFTEQTAPKIFGGEIKTHILLFLPKSVSDYDGKLSNFKTAAESFKGKILFIFIDSHTDNQR  
ILEFFGLKKEECPAVRLITTLEEMTKYKPESEELTAERITEFCHRFLEGKIKPHLMSQELPEDWDKQPVKVLVGK  
NFEDVAFDEKKNVFVEFYAPWCGHCKQLAPIWDKLGETYKDHENIVIAKMDSTANEVEAVKVHGFPTLGFFPASA  
DRTVIDYNGERTLDGFKKFLES GGQDGAGDVDDLEDLEEAEPDMEEDDDQKAVKDEL

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**FIGURE 49**

GGGCAAGGCTGGGCGGGAAGGGCGTGGGTTGAGGAGAGGCTCCAGACCCGCACGCCGCGGCACAGAGCTCTCA  
GCGCCGCTCCCAGCCACAGCCTCCCGCGCCTCGCTCAGCTCCAACATGGCAAAAATCTCCAGCCCTACAGAGACT  
GAGCGGTGCATCGAGTCCCTGATTGCTGTCTTCCAGAAGTATGCTGGAAAGGATGGTTATAACTACACTCTCTCC  
AAGACAGAGTTCCTAAGCTTCATGAATACAGAACTAGCTGCCTTCACAAAGAACCAGAAGGACCCTGGTGTCTCTT  
GACCGCATGATGAAGAACTGGACACCAACAGTGATGGTCAGCTAGATTTCTCAGAATTTCTTAATCTGATTGGT  
GGCCTAGCTATGGCTTGCCATGACTCCTTCCTCAAGGCTGTCCCTTCCCAGAAGCGGACCTTGAGGACCCCTTGGC  
CCTGGCCTTCAAACCCACCCCCTTTCCTTCCAGCCTTTCTGTCATCATCTCCACAGCCCACCCATCCCCTGAGCA  
CACTAACCACCTCATGCAGGCCCCACCTGCCAATAGTAATAAAGCAATGTCACCTTTTTTAAACATGAAA

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**FIGURE 50**

MAKISSPTETERCIESLIAVFQKYAGKDGYNITLSKTEFLSFMNTELAFTKNQKDPGVLDMMKKLDTNSDGQL  
DFSEFLNLIGGLAMACHDSFLKAVPSQKRT

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**FIGURE 51**

GGGACGGCGACAGCGGGTCGGCGGGCCGCGAGGAGGGGGTCATGGGTAAAGACTACTACCAGACGTTGGGCCTGGC  
CCGCGGGCGCGTCGGACGAGGAGATCAAGCGGGCCTACCGCCGCCAGGCGCTGCGCTACCACCCGGACAAGAACAA  
GGAGCCCGGCGCCGAGGAGAAGTTCAAGGAGATCGCTGAGGCCTACGACGTGCTCAGCGACCCGCGCAAGCGCGA  
GATCTTCGACCGCTACGGGGAGGAAGGCCTAAAGGGGAGTGGCCCCAGTGGCGGTAGCGGCGGTGGTGCCAATGG  
TACCTCTTTTACGCTACACATTCCATGGAGACCCCTCATGCCATGTTTGCTGAGTTCTTCGGTGGCAGAAATCCCTT  
TGACACCTTTTTTGGGCAGCGGAACGGGGAGGAAGGCATGGACATTGATGACCCATTCTCTGGCTTCCCTATGGG  
CATGGGTGGCTTCACCAACGTGAACCTTTGGCCGCTCCCGCTCTGCCCAAGAGCCCGCCGAAAGAAGCAAGATCC  
CCCAGTCACCCACGACCTTCGAGTCTCCCTTGAAGAGATCTACAGCGGCTGTACCAAGAAGATGAAAATCTCCCA  
CAAGCGGCTAAACCCCGACGGAAGAGCATTGCAAACGAAGACAAAATATTGACCATCGAAGTGAAGAAGGGGTG  
GAAAGAAGGAACCAAAATCATTTCCTCCCAAGGAAGGAGACCAGACCTCCAACAACATTCCAGCTGATATCGTCTT  
TGTTTTAAAGGACAAGCCCCACAATATCTTTAAGAGAGATGGCTCTGATGTCATTTATCTGCCAGGATCAGCCT  
CCGGGAGGCTCTGTGTGGCTGCACAGTGAACGTCCCCACTCTGGACGGCAGGACGATACCCGTCGTATTCAAAGA  
TGTTATCAGGCCTGGCATGCGGCGAAAAGTTCCCTGGAGAAGGCCTCCCCCTCCCCAAAACACCCGAGAAACGTGG  
GGACCTCATTATTGAGTTTGAAGTGATCTTCCCCGAAAGGATTCCCCAGACATCAAGAACCCTACTTGAGCAGGT  
TCTTCCAATATAGCTATCTGAGCTCCCCAAGGACTGACCAGGGACCTTTCAGAGCTCAAGGATTTCTGGACCTT  
TCTACCAGTTGTGGACCATGAGAGGGTGGGAGGGCCAGGGAGGGCTTTCGTACTGCTGAATGTTTTCCAGAGCA  
TATATTACAATCTTTCAAAGTCGCACACTAGACTTCAGTGGTTTTTCGAGCTATAGGGCATCAGGTGGTGGGAAC  
AGCAGGAAAAGGCATTCCAGTCTGCCCCACTGGGTCTGGCAGCCCTCCCGGGATGGGCCCACATCCACCTCCAGT  
CCCTGGCCAGGGGTGAGAGGCAGACCAGCAGATGGACTTGATCCCTCTGTGTCTTTGGGCTTCTGGCTGGTAGAT  
AATGTCAACCTGCAGTCTTGATTCCCAGACCCTGTACACTCCTCCTTTTCTGTTGTGTGATCAGTTTGTGCTTTA  
TTCTGTATTTGTCTCCCATGTCTTGCTCTTCTCCTGGAGAATTCTGTCTTCTCTTTGGCCATCTCAAATTGAGAA  
CCTAAACTATTCTGCAGAACTGCCCTGGTTGGCGTCCACAAGCAATACCTCTCGTTCCAGCAGGACCAAGGGAGC  
CAGCCTCCAGTGAGTGACTCCAGCAAGTGCAGCCACCTCTCCCTTGATGGTCTGGGAGCCTGGCCTCAGCAAGGG  
GCCTTCCTGACCTCTGGCTCCAGTGAAGCTGAATGTCTCACTTTTGTTGGGTACACTCTTTACATTTCTGTAAGG  
CAATCTTGGCACACGTGGGGCTTACCAGTGGCCCAGGTAATTTTTTGTTCATGGACTATGGACTCTTTCAAAGG  
GATCTGATCCTTTTGAATTTTGCACAGCCCTAGATACAATCCCTTTTGATAAAAAGGGTCTTTGCTTCTGATTACA  
GGAGCACTGTGGAACGTCTGTAAATATGTTTTTATAATTCCATGTATAGTTGGTGTACACTCAAACCTGTCCCC  
GGCAGCCAGTGCTCTCTGTATAGGGCCATAATGGAATTCTGAAGAAATCTTGGGGAGGGAAGGGGAGTTGGAACA  
AATGTCTGTTCCCTGGAGGCCAGTCCAGTGCTCAGACCTTTAGACTCATTGTAAGTTGCCACTGCCAACATGAGA  
CCAAAGTGTGTGACTAGTCAATGAAGTGCAGACAGCATTAAAGACTGATGCTAAACCTC

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**FIGURE 52**

MGKDYYQTLGLARGASDEEIKRAYRRQALRYHPDKNKEPGAEEKFKEIAEAYDVLSDPRKREIFDRYGEEGLKGS  
GPSGGSGGGANGTSFSYTFHGDPHAMFAEFFGGRNPFDTFFGQRNGEEMDIDDPFSGFPMGMGGFTNVNFGRRSR  
SAQEPARKKQDPPVTHDLRVSLEEIYSGCTKKMKISHKRLNPDGKSIRNEDKILTIEVKKGWKEGTKITFPKEGD  
QTSNNIPADIVFLKDKPHNIFKRDGSDVIYPARISLREALCGCTVNVPTLDGRTIPVVFKDVIRPGMRRKVPGE  
GLPLPKTPEKRGDLIEFEVIFPERIPQTSRTVLEQVLP I

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**FIGURE 53**

GCCGTGTCGCCACCATGGCTCCGCACCGCCCCGCGCCCGCGCTGCTTTGCGCGCTGTCCCTGGCGCTGTGCGCGC  
TGTCGCTGCCCGTCCGCGCGGCCACTGCGTCGCGGGGGCGTCCCAGGCGGGGGCGCCCCAGGGGCGGGTGCCCCG  
AGGCGCGGCCAACAGCATGGTGGTGGAAACACCCCGAGTTCTCAAGGCAGGGAAGGAGCCTGGCCTGCAGATCT  
GGCGTGTGGAGAAGTTTCATCTGGTGGCCGTGCCACCAACCTTTATGGAGACTTCTTCACGGGCGACGCCTACG  
TCATCCTGAAGACAGTGCAGCTGAGGAACGGAAATCTGCAGTATGACCTCCACTACTGGCTGGGCAATGAGTGCA  
GCCAGGATGAGAGCGGGGCGGCCGCCATCTTTACCGTGCAGCTGGATGACTACCTGAACGGCCGGGCGGTGCAGC  
ACCGTGAGGTCCAGGGCTTCGAGTCGGCCACCTTCCTAGGCTACTTCAAGTCTGGCCTGAAGTACAAGAAAGGAG  
GTGTGGCATCAGGATTCAAGCACGTGGTACCCAACGAGGTGGTGGTGCAGAGACTCTTCAGGTCAAAGGGCGGC  
GTGTGGTCCGTGCCACCGAGGTACCTGTGTCTGGGAGAGCTTCAACAATGGCGACTGCTTCATCCTGGACCTGG  
GCAACAACATCCACAGTGGTGTGGTTCCAACAGCAATCGGTATGAAAGACTGAAGGCCACACAGGTGTCCAAGG  
GCATCCGGGACAACGAGCGGAGTGGCCGGGCCCCGAGTGCACGTGTCTGAGGAGGGCACTGAGCCCGAGGCGATGC  
TCCAGGTGCTGGGCCCCAAGCCGGCTCTGCCTGCAGGTACCGAGGACACCGCCAAGGAGGATGCGGCCAACCGCA  
AGCTGGCCAAGCTCTACAAGGTCTCCAATGGTGCAGGGACCATGTCCGTCTCCCTCGTGGCTGATGAGAACCCCT  
TCGCCCAGGGGGCCCTGAAGTCAGAGGACTGCTTCATCCTGGACCACGGCAAAGATGGGAAAATCTTTGTCTGGA  
AAGGCAAGCAGGCAAACACGGAGGAGAGGAAGGCTGCCCTCAAAACAGCCTCTGACTTCATCACCAAGATGGACT  
ACCCCAAGCAGACTCAGGTCTCGGTCTTCCTGAGGGCGGTGAGACCCCACTGTTCAAGCAGTTCTTCAAGAACT  
GGCGGGACCCAGACCAGACAGATGGCCTGGGCTTGTCTACCTTTCCAGCCATATCGCCAACGTGGAGCGGGTGC  
CCTTCGACGCCGCCACCTGCACACCTCCACTGCCATGGCCGCCAGCACGGCATGGATGACGATGGCACAGGCC  
AGAAACAGATCTGGAGAATCGAAGGTTCCAACAAGGTGCCCCGTGGACCCTGCCACATATGGACAGTTCTATGGAG  
GCGACAGCTACATCATTCTGTACAACCTACCGCCATGGTGGCCGCCAGGGGCAGATAATCTATAACTGGCAGGGTG  
CCCAGTCTACCCAGGATGAGGTGCGTGCATCTGCCATCCTGACTGCTCAGCTGGATGAGGAGCTGGGAGGTACCC  
CTGTCCAGAGCCGTGTGGTCCAAGGCAAGGAGCCCCGCCACCTCATGAGCCTGTTTGGTGGGAAGCCCATGATCA  
TCTACAAGGGCGGCACCTCCCGCGAGGGCGGGCAGACAGCCCCCTGCCAGCACCCGCCTCTTCCAGGTCCGCGCCA  
ACAGCGCTGGAGCCACCCGGGCTGTTGAGGTATTGCCTAAGGCTGGTGCCTGAACCTCAACGATGCCTTTGTTC  
TGAAAACCCCTCAGCCGCCTACCTGTGGGTGGGTACAGGAGCCAGCGAGGCAGAGAAGACGGGGGCCAGGAGC  
TGCTCAGGGTGTGCGGGGCCAACCTGTGCAGGTGGCAGAAGGCAGCGAGCCAGATGGCTTCTGGGAGGCCCTGG  
GCGGGAAGGTGCCTACCGCACATCCCCACGGCTGAAGGACAAGAAGATGGATGCCCATCCTCCTCGCCTCTTTG  
CCTGCTCCAACAAGATTGGACGTTTTGTGATCGAAGAGGTTCTTGGTGAAGTCTATGCAGGAAGACCTGGCAACGG  
ATGACGTCTATGCTTCTGGACACCTGGGACCAGGTCTTTGTCTGGGTGGAAAGGATTCTCAAGAAGAAGAAAAGA  
CAGAAGCCTTGACTTCTGCTAAGCGGTACATCGAGACGGACCCAGCCAATCGGGATCGGCGGACGCCCATCACCG  
TGGTGAAGCAAGGCTTTGAGCCCTCCCTCCTTTGTGGGCTGGTTCTTGGCTGGGATGATGATTACTGGTCTGTGG  
ACCCCTTGGACAGGGCCATGGCTGAGCTGGCTGCCTGAGGAGGGGCGAGGGCCACCCATGTCACCGGTCAGTGCC  
TTTTGGAAGTGTCTTCCCTCAAAGAGGCCTTAGAGCGAGCAGAGCAGCTCTGCTATGAGTGTGTGTGTGTGT  
GTGTTGTTCTTTTTTTTTTTTTTACAGTATCAAAAATAGCCCTGCAAAAATTCAGAGTCCTTGCAAAATTGTC  
TAAAATGTCAGTGTGTTGGGAAATTAAATCCAATAAAAACATTTTGAAGTGTG

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**FIGURE 54**

MAPHRPAPALLCALSLALCALSLPVRAATASRGASQAGAPQGRVPEARPNMVEHPEFLKAGKEPGLQIWRVEK  
FDLVPVPTNLYGDDFTGDAYVILKTVQLRNGNLQYDLHYWLGNECSQDESGAAAIFTVQLDDYLNGRAVQHREVQ  
GFESATFLGYFKSGLKYKKGGVASGFKHVVPNEVVQRLFQVKGRRVVRAATEVPVSWESFNNGDCFILDLGNNIH  
QWCGSNSNRYERLKATQVSKGIRDNERSGRARVHVSEEGTEPEAMLQVLGPKPALPAGTEDTAKEDAANRKLAKL  
YKVSNGAGTMSVSLVADENPFAQGALKSEDCFILDHGKDGKIFVWKGKQANTEERKAALKTASDFITKMDYPKQT  
QVSVLPEGGETPLFKQFFKNWRDPDQTDGLGLSYLSSHIANVERVPFDDAATLHTSTAMAAQHGMDDDGTGQKQIW  
RIEGSNKVPVDPATYQOFYGGDSYIILYNYRHGGRQGQIIYNWQGAQSTQDEVAASAILTAQLDEELGGTPVQSR  
VVQGKEPAHLMSLFGGKPMIYKGGTSREGGQTAPASTRLFQVRANSAGATRAVEVLPKAGALNSNDAFVLKTPS  
AAYLWVG TGASEAEKTGAQELLRLVLAQPVQVAEGSEPDGFWEALGGKAAAYRTSPRLKDKKMDAHPRLFACSNK  
IGRFVIEEVPGELMQEDLATDDVMLLDTWQVFWVGKDSQEEEEKTEALTSAKRYIETDPANRDRRTPITVVKQG  
FEPPSFVGWFLGWDDDYWSVDPLDRAMAEELAA



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## FIGURE 55A

CCGGCTCGGTACGCGCTCTGCTCCGAGCCGCTCACTGCGTGGTAGAGTCTGGTGCCCCCGCCGTGCGCTGCATCG  
CCGCCACCGCCGCTCCGCCACGACCACCGCCGCTCCTGCCCTGCAGCCACCGCCACCGCTGTGTGCGCCGCGC  
CTCGGGACCGGCTGTATGATTAGGCCACAATCTTCAATGAGTAAACATATTCTCAATTCTGTGGTGTCTTGGT  
CACACATTTTATGGAGTTTCTGAAGGGCAGTGGAGATTACTGCCAGGCACAGCACGACCTCTATGCAGACAAGTGA  
ACTGTAGAAACTGATTACTGCTCCACCAAGAAGCCCCATAAGAGTGGTTATCCTGGACACAGAAGTGTGAATT  
GAAATCCACAGAGCATTTTACAAGAGTTCTGACCTGGATGGGGTAAACCTCAGTGCACCTCTTTTCTGTGGCCT  
CAGTATTACTGGATTGAAGAATTGCTGCTTCTTGTTAGGAGGTTTCATTTCACTTATCATTACTTACAACCTTCATA  
CTCAAAGCACTGAGAATTTCAAGTGGAGTATATTGAAGTAGACTTCAGTTTCTTGCATCATTCTGTATTCAAT  
TTTTTTAATTATTTTCATAACCTTATTGAGTGTTTTTTAACTAAATTAACATGGCTCGAATGAACCGCCAGCTCC  
TGTGGAAGTCACATACAAGAACATGAGATTCTTATTACACACAATCCAACCAATGCGACCTTAAACAAATTTAT  
AGAGGAACCTTAAGAAGTATGGAGTTACCACAATAGTAAGAGTATGTGAAGCAACTTATGACACTACTCTTGTGGA  
GAAAGAAGGTATCCATGTTCTTGATTGGCCTTTTGATGATGGTGCACCACCATCCAACCAGATTGTTGATGACTG  
GTTAAGTCTTGTGAAAATTAAGTTTCGTGAAGAACCTGGTTGTTGATTGCTGTTTCATTGCGTTGCAGGCCTTGG  
GAGAGCTCCAGTACTTGTGCCCCTAGCATTAAATGAAGGTGGAATGAAATACGAAGATGCAGTACAATTCATAAG  
ACAAAAGCGGCGTGGAGCTTTTAAACAGCAAGCAACTTCTGTATTTGGAGAAGTATCGTCCTAAAATGCGGCTGCG  
TTTCAAAGATTCCAACGGTCATAGAAACAACCTGTTGCATTCAATATAAATTGGGGTGCCTAATGCTACTGGAAGTG  
GAACTTGAGATAGGGCCTAATTTGTTATACATATTAGCCAACATGTTGGCTTAGTAAGTCTAATGAAGCTTCCAT  
AGGAGTATTGAAAGGCAGTTTTACCAGGCCTCAAGCTAGACAGATTGGCAACCTCTGTATTTGGGTTACAGTCA  
ACCTATTTGGATACTTGGCAAAAGATTCTTGCTGTGACATATAAAATGTGCTTGTCATTGTATCAATTGACCT  
TTCCCCAAATCATGCAGTATTGAGTTATGACTTGTTAAATCTATTCCCATGCCAGAATCTTATCAATACATAAGA  
AATTTAGGAAGATTAGGTGCCAAAATACCCAGCACAACTTGTATATTTTTAGTACCATACAGAAGTAAATCC  
CAGGAACATATGAACACTAGACCTTATGTGGTTTATTCTTCAATCATTTCAAACATTGAAAGTAGGGCCTACATG  
GTTATTTGCGCTGCTCACTTTATGTTTACATCTCCACATTTCATACCAATATACGTCAGGTTTGCTTAACCATTGA  
TTTTTTTTTTTTTTTACCAAGTCTTACAGTGATTATTTTACGTGTTTCCATGTATCTCACTTTGTGCTGTATTAA  
AAAAACCTCCATTTTGAAAATCTACGTTGTACAGAAGCACATGTCTTTAATGTCTTCAGACAAAAAAGCCTTACA  
TTAATTTAATGTTTGCACCTCTGAGGTGCAACTTAACAGGGAGGGCCTGAGAAAAGAAATGGGAGGGGGCTATTAA  
TATTTTTTTAGCAAAATGTTGCCTTTGTCTTGTGCAACATGTAGAATATGCTCTTTAATTTAGTAAATATTTTT  
TTAAAGGTAGAGATGCTTTGTTATTGTAATCATAAACCTCCTGAAATTCCTGTAATTTTTTTCCCATACTTATC  
AGAAGTGTGTTTACCAACTTATTTTTGTTGAAAGTGTGATTTTTTTTTCTTCCCAACCTCTCTTGCAAAAAA  
AGAAATGGGTTTCTGCTAATGAATTGAGCACATCTAATATTTTATATGCCTTTTGAGCTGTGTAAGTTAATATT  
TGATACTTGACAATTTGTTTTATTATGTAATTGATAAAATGGTGATGTGTTAATGTTAGTTCAACCATATATT  
TATACTGTCTGGGGATGTGTGGTTATAGTTCTGTGGGAGAAATAATTTGTGCTAGTGTTCACCAGCTTGTA AAAAC  
TTAGTGCAGAGAGCTGAAACATCTAAATAAATAATGACATGCATTTATCATCATTGAGATTGGTTTGCTTTAAATT  
AACTTATTTTGTAGAAGACAAAATGAATTGCACCTTCACTTAATGTGTGTCCTCATCTTTTACAAATAAATGAAG  
GATTATAAATGATGTCAGCATTTTAGTAACTTTTAGACAAAATTTGTTAGGGTCATTCATGAAAACCTTAATAC  
TAAAAGCACTTTCCATTATATACTTTTTAAAGGTCTAGATAATTTGAACCAATTTATTATTGTGTACTGAGGAG  
AAATAATGTATAGTAGAGGACAGCCTTGGTTTGTAAAGCTCAGTTCCACTAGTTTCATGGTTTTGTGCAACTTCTG  
AGCCTCAGTTTTCTCCTTTGCAAATTAATAATTACATACCTTTATAGATTTTGAAATTAATTTAAATATTAGTAT  
TTGGTACATGAAGGCTTAATGTTAAGTTTCCTTTAATGATCCACAATAATCCCTTTGATCACGTTAATCTAAATC  
TAGATGTCTTTGTCTAATTTTTTTGAATAGCAGTTATAAATGTAAAGGACTCAAAGTTTAAGTAAAAAGTGATA  
CTCCACCTTGTGTTTCAAAGAATTTAGTTCCACCTCTTCATACAGTTTAACTTAATATATTTTATTGGATTT  
TAGACAGGGCAAAAGGAAGAACAGGGGCCTCTGGAGGCCCTTGGTTATTTAAATCTTGGATTATTTGTGATAGTA  
ATCACAAATTTTTGGCTAATTTTTAACCTGAGGTTTTGTTTTTTTTTAAAGGAAATGCAGCCTAGTCTTGAGAA  
CATAATTTTATATAATCAATTACTAAATGTTAACTATTACCACACAGCCCATAAAACAGCATTTGCGTTTATTG  
AGAGAGAGGATGTGCCATCATGATTAATGAAAACATCTTTTGAAGTTTGAAAAGAAATTAATTTGCAGTGTTTGG  
ATTGTATATATGGTGCTAAAAATAAATTAATTTACTTTATAAACTTATCTGTACATTATACGATGTGATGAAAT  
TTGCTTTTTATCCAAATATTTTGTATCTTGTAATATGGCTAATTATAGGAATGCCTATAATACATCTTAGATTCT  
CTTATATCTAATAAGAGTTCAAAGAGTTATGAGTTGAAGTCTTGAATGCAGGAACTATCTGATAGTGTCTAAA

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**FIGURE 55B**

ATTGTTACTTGGGTTTGGATACCCTTAGTGGGATGATGTAAATAGAGGCTAGCTACCTAGGCTTGTCTATAGC  
AACCATAATGTTGATGTAAGTAATGCGGTTACTGAATCATAAGAAAATGCCATCTCTTTTTAGTTGAAGGAAAAC  
TCTGGAAGTAGGTGCCATTGGTCATTCTGCAGTGCAGTCAACCATTTGTTCCCTAGTGCCCTCTTTCCCTAG  
GGCATTGCTCTCCTATTCCCACGCCTTAACACAGCTCTATACCTAGAAGCAGCCAGCCAGGCATGCAGTCACAT  
TTAATCACATCCCCCTTCTAGAGTGCTTCAAAATGATGTAGTCCCTCAACTTGGCTAAAGAATCTCAATCTCTTG  
AAATTTATTTTTTAAATGTCATATTTCATCTGGTAAATATCTACTGTTTGCCAGGCATTTAAGAATATGGCAAAGA  
ACATAAAAGATGGTGTCCACCAGATTTTGGTCACCAATGAGTACCCGACCCGTTGCCATGATTAAGAGAGAATGCT  
TTCTATTGGAGTTTCAGGAAATATAATTTGAGAATACTTTAAAGGGAAGTGAAGTATAAGTGAATGATATTTTT  
CTTTTACATGTAAACAATGAAGTTATTTCAAAGTTAAGTTTTAAACAAAATACATGAAGTAGTGTCTGCCATACA  
TGTTAATATTCTACATTCTTGCTTCCTTAAATTAATATGTTTGTGTGTATATATGTGCCTCACACCTGAATTGAA  
AATTAAAGACTGGTTTAAAAGTGGTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 56**

MARMNRPAPVEVTYKNMRFLITHNPTNATLNKFI EELKKYGVT TIVRVCEATYDTTLVEKEGIHVLDWPFDDGAP  
PSNQIVDDWLSLVKIKFREEPGCCIAVHCVAGLGRAPVLVALALIEGGMKYEDAVQFIRQKRRGAFNSKQLLYLE  
KYRPKMRLRFKDSNGHRNNCCIQ

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**FIGURE 57**

CGCCCCCTGCTCTCGCGCCGGCGTCTGGCTGCGTCTCCGGCGTTTGAATTGCGCTTCCGCCATCTTTCCAGCCTCAG  
TCGGACGGGCGCGGAGGCGCTTCTGGAAGGAACGCCGCG**ATG**GCTGCGCAGGGAGAGCCCCAGGTCCAGTTCAAA  
CTTGATTGGTTGGTGATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTTGACTGGTGAATTTGAGAAG  
AAGTATGTAGCCACCTTGGGTGTTGAGGTTTCATCCCCTAGTGTTCCACACCAACAGAGGACCTATTAAGTTCAAT  
GTATGGGACACAGCCGGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGTGTGCCATC  
ATAATGTTTGATGTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTACGAGTGTGT  
GAAAACATCCCCATTGTGTTGTGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTC  
TTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTACAACCTTGAAAAGCCCTTCCTC  
TGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCAGAAAGTT  
GTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACCTGCTCTCCCGGATGAG  
GATGATGACCTG**TGAGA**ATGAAGCTGGAGCCCAGCGTCAGAAAGTCTAGTTTTATAGGCAGCTGTCCTGTGATGTC  
AGCGGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTATCTGTGGGATGCTGAAG  
GAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTTAAAAATAAATTCATTGTTTGGACCTGCATATTTAGCTGT  
TTGGACGCAGTTGATTCCCTTGAGTTTCATATATAAGACTGCTGCAGTCACATCACAATATTCAGTGGTGAAAATCT  
TGTTTGTTACTGTCAATCCCATTCCCTTTCTTTAGAAATCAGAAATAAAGTTGTATTTCAAATATCTAAGCAAGTGA  
ACTCATCCCTTGTTTATAAATAGCATTGTGGAAACCACTAAAGTAGGGAAGTTTTATGCCATGTTAATATTTGAAT  
TGCCTTGCTTTTATCACTTAATTTGAAATCTATTGGGTAAATTTCTCCCTATGTTTATTTTTGTACATTTGAGCC  
ATGTCACACAAACTGATGATGACAGGTCAGCAGTATTCTATTTGGTTAGAAGGTTACATGGTGTAATATTTAGT  
GCAGTTAAGCTAAAGCAGTGTTTGCTCCACCTTCATATTGGCTAGGTAGGTCACCTAGGGAAGCACTTGCTCAA  
AATCTGTGACCTGTCAGAAATAAAATGTGGTTTGTACATATCAAAATAGATATTTTAAGGGTAATATTTCTTTTA  
TGGCAAAAGTAATCATGTTTTAATGTAGAACCTCAAACAGGATGGAACATCAGTGGATGGCAGGAGGTTGGGAAT  
TCTTGCTGTTAAAAATAATTACAAATTTTGCACTTTTTGTGTTGAATGTTAGATGCTTAGTGTGAAGTTGATACGC  
AAGCCG

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**FIGURE 58**

MAAQGEPQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQEKFGGL  
RDGYIIQAQCAIIMFDVTSRVITYKNVPNWHRDLVRVCENIPIVLCGNKVDIKDRKVKAKSIVFHRKKNLQYYDIS  
AKSNYNFEKPFLLWLARKLIGDPNLEFVAMPALAPPEVMDPALAAQYEHDLVAQTALPDEDDDL

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**FIGURE 59**

TTTTGTGAAGAGACGAAGACTGAGCGGTTGTGGCCGCGTTGCCGACCTCCAGCAGCAGTCGGCATTCTCTAACGC  
AGAAACCCGGGAGTAGGAGACTCAGAATCGAATCTCTTCTCCCTCCCCTTCTTGTGAGATTTTTTTGATCTTCAG  
CTACATTTTCGGCTTTGTGAGAAACCTTACCATCAAACACGATGGCCAGCAACGTTACCAACAAGACAGATCCTC  
GCTCCATGAACCTCCCGTGTATTCAATTGGGAATCTCAACACTCTTGTGGTCAAGAAATCTGATGTGGAGGCAATCT  
TTTCGAAGTATGGCAAAATTGTGGGCTGCTCTGTTTATAAGGGCTTTGCCTTCGTTTCAGTATGTTAATGAGAGAA  
ATGCCCCGGGCTGCTGTAGCAGGAGAGGATGGCAGAATGATTGCTGGCCAGGTTTTAGATATTAACTGGCTGCAG  
AGCCAAAAGTGAACCGAGGAAAAGCAGGTGTGAAACGATCTGCAGCGGAGATGTACGGGTCAGTAACAGAACACC  
CTTCTCCGTCCCCTCTACTCAGCTCCTCTTTTGAAGTTGGACTATGACTTTCAACGGGACTATTATGATAGGATGT  
ACAGTTACCCAGCACGTGTACCTCCTCCTCCTCCTATTGCTCGGGCTGTAGTGCCCTCGAAACGTCAGCGTGTAT  
CAGGAAACACTTCACGAAGGGGGCAAAAGTGGCTTCAATTCTAAGAGTGGACAGCGGGGATCTTCCAAGTCTGGAA  
AGTTGAAAGGAGATGACCTTCAGGCCATTAAGAAGGAGCTGACCCAGATAAAAACAAAAGTGGATTCTCTCCTGG  
AAAACCTGGAAAAAATGGAAAAGGAACAGAGCAAACAAGCAGTAGAGATGAAGAATGATAAGTCAGAAGAGGAGC  
AGAGCAGCAGCTCCGTGAAGAAAGATGAGACTAATGTGAAGATGGAGTCTGAGGGGGGTGCAGATGACTCTGCTG  
AGGAGGGGGACCTACTGGATGATGATGATAATGAAGATCGGGGGGATGACCAGCTGGAGTTGATCAAGGATGATG  
AAAAAGAGGCTGAGGAAGGAGAGGATGACAGAGACAGCGCCAATGGAGGATTGACCTCTTAAGCACATAGTGGGGTT  
TAGAAATCTTATCCCATTTATTTCTTTACCTAGGCGCTTGTCTAAGATCAAATTTTTTACCAGATCCTCTCCCCTA  
GTATCTTCAGCACATGCTCACTGTTCTCCCCATCCTTGTCTTCCCATGTTTCAATTAATTCATATTGCCCCGCGCC  
TAGTCCCATTTTTCACTTCCTTTGACGCTCCTAGTAGTTTTGTGAAGTCTTACCCTGTAATTTTTTGCTTTTAATTT  
TGATACCTCTTTATGACTTAACAATAAAAAGGATGTATGGTTTTTATCAACTGTCTCCAAAATAATCTCTTGTTA  
TGCAGGGAGTACAGTTCTTTTCATTTCATACATAAGTTCAAGTAGTTGCTTCCCTAACTGCAAAGGCAATCTCATT  
AGTTGAGTAGCTCTTGAAAGCAGCTTTGAGTTAGAAGTATGTGTGTTACACCCTCACATTAGTGTGCTGTGTGGG  
GCAGTTCAACACAAATGTAACAATTATTTTTGTGAATGAGAGTTGGCATGTCAAATGCATCCTCTAGAAAAATAA  
TTAGTGTTATAGTCTTAAGATTTGTTTTCTAAAGTTGATACTGTGGGATTTTTGTGAACAGCCTGATGTTTGGGA  
CCTTTTTTCCTCAAAATAAACAAGTCCTTATTAAACCAGGAATTTGGAG

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**FIGURE 60**

MASNVTNKTDPRSMNSRVFIGNLNTLVVKKSDVEAIFSKYGKIVGCSVHKGFVQYVNERNARA AVAGEDGRMI  
AGQVLDINLAAEPKVN RGKAGVKRSAAEMYGSVTEHPSPSPLLSSSFDDYDFQRDYYDRMYSYPARVPPPPPIA  
RAVVPSKRQRVSGNTSRRGKSGFNSKSGQRGSSKSGKLKGDDLQAIKKELTQIKQKVD SLENLEKMEKEQSKQA  
VEMKNDKSEEEQSSSSVKKDETNVKMESEGGADDSAEEGDLLDDDDNEDRGDDQLELIKDDEKEAEEGEDDRDSA  
NGG

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**FIGURE 61**

GAGAGGAGACACCGCCGAGTTGCCGGTACATCGGGGATTTCTGGCTCTTTCCTCTTCGCCTTAAATTCGGGTGT  
CTTTTATGAAATAATCAAAAGCAGCAAAAGCCAACGCTATCAGGCCAGCGTTTTAAACTAGAAAAAGAGATGAAA  
AAGAGAGGTTTGACCTACTCAGTTTCAAGACTGTATTATTCAAGGCTTAAGTGAACCGGTACTGATTTGGAAG  
CAGTAGCTAAGTTTCTTGATGCTTCTGGAGCAAACTTGATTACCGTCGATATGCAGAAACACTCTTTGACATT  
TGGTGGCTGGTGGAATGCTGGCCCCAGGTGGTACACTGGCAGATGACATGATGCGTACAGATGTCTGCGTGTTG  
CAGCCCAAGAAGATCTAGAGACCATGCAAGCATTGCTCAGGTTTTTAACAAGTTAATCAGGCGCTACAAATACC  
TGGAGAAAGGTTTTGAAGATGAAGTAAAAAGCTGCTGCTGTTCTTGAAGGGTTTTTCAGAGTCGGAGAGGAACA  
AGCTAGCTATGTTGACTGGTGTTCTTCTGGCTAATGGAACACTTAATGCATCCATTCTTAATAGCCTTTATAATG  
AAAAATTTGGTTAAAGAAGGAGTTTCAGCAGCTTTTGTGTGAAGCTCTTTAAATCATGGATAAATGAAAAAGATA  
TCAATGCAGTAGCTGCAAGTCTTCGGAAAGTCAGCATGGATAACAGACTGATGGAACCTTTTTCTGCCAATAAGC  
AAAGTGTGTAACACTTCACAAAATATTTTACTGAGGCAGGCTTGAAAAGAGCTTTTCAGAATATGTTCCGAATCAGC  
AAACCATCGGAGCTCGTAAGGAGCTCCAGAAAGAACTTCAAGAACAGATGTCCCGTGGTGATCCATTTAAGGATA  
TAATTTTATATGTCAAGGAGGAGATGAAAAAACAACATCCCAGAGCCAGTTGTCATCGGAATAGTCTGGTCAA  
GTGTAATGAGCACTGTGGAATGGAACAAAAAAGAGGAGCTTGTAGCAGAGCAAGCCATCAAGCACTTGAAGCAAT  
ACAGCCCTCTACTTGCTGCCTTTACTACTCAAGGTCAGTCTGAGCTGACTCTGTTACTGAAGATTCAGGAGTATT  
GCTATGACAACATTCATTTTCATGAAAGCCTTCCAGAAAATAGTGGTGCTTTTTTATAAAGCTGAAGTCCTGAGCG  
AGGAGCCCCATTTTGAAGTGGTATAAAGATGCACATGTTGCAAAGGGGAAGAGTGTTTTCTTGAGCAAATGAAAA  
AGTTTGTAAGATGGCTCAAAAATGCTGAAGAAGAATCTGAATCTGAAGCTGAAGAAGGTGACTTGAATTTTGAAC  
TACACCTCAGTAAAGCAAACAGGAGTTGTAGATAAAATGTCATGTCTCATGTGTCCTGGTTCTTACATCTTCCT  
ACCTCCCTGTATCAAGCATGATATAAGGGCTTTTCATGGCAAATTTTATTTTAACTGTTTCTATGGTTGCTGGAAA  
TGTTGGGTTTAGTTTCTAAAACCATGTTTTAAGTAGCTACAGGAGCTATAGATTTGAATCTAATGTTGCATTAGT  
CTTTTCAGTTATCTTCTACCTCCTGTATTTTCTACTGTAATAATGTAATTTAAGGCCTTCCACAATGAACAGTTC  
ACTTATTCCTGGGTTTTCTATAAACAGTTTTAAGGATATGATTTGGTTAAAAAATAATTTGTTATAAAAAATTC  
TGTTTGCAAAATAAACTGGAAAAGTATCCAGAGTCTCAAAAGGCAATGATTTGTGAGATAATATGGCATGCCCGG  
AGCCCTGCTCATCAATGAAAAACCCATATGTAATAATCGAATTCATTTAACATGAATCTTGAGTACGTGGACCAT  
TGCTTGCAATGTTAACTTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGCAATTTTTAACTCCAGATATCCTAAAGCTC  
AATTGTTTGGTCTCTGGTTTTTCATCCTTAGAGAAGCCATGGAGAACAGACTTGAAAAGTTTAGGAAATCATAATG  
TGGCAGAGGTGGTGGGAAGAAGAAAGTTGAGCTTTTTCCCTTGAGAACTTCTGCATTTAGTTTCTATCTTTCC  
AGGCAAAACAAATGGGTATTCTTTTCATACAACCATTTTCAAATGAACCTTAGAAAAGTCTTAACATTTAAGGTA  
TTTTATGCACAGAATACACTTAGATTGATAGGAAAGAACTCGTAATGGAGTTTGAGTAAAGAAAATGACTGATGT  
ACTAAACCCAGTAAAAATTGTTGAAAATGTTAAAGGTCAGCATGTTCTAATTGGGAATCTAGATATAGCTTAGAT  
TTCCTATTGGCTTAGAGTATTTGCTATAACAAATGAAGTGCAATGACAATTATATATTCCTACTCGGTCATACTG  
GACTGGCTTCGTTCTCTTAATATACTCAGTAATGACTCAAGCCTCTGGCTATTAACATACCCTAGTTGCCGTTTT  
TTAATTGCCATGAGCCAAATACTTCTTGGTATACAATTGATCCATTTATTTTAAATGGCTGCCTTTTCATTTTCAT  
CTTTTCTTGCTGCTACCCATCTATGTATGTAGTCATTGGGGGAAAAATGTAGCCACATTTTTTATGGGAAGACTT  
TGTGTTAAAAAGTGAACATTTTGAAGGTTTTTAACTGGTGAACTAGCCTGGAATAATGCCACCAGAGACTGAGTG  
GAAATCGCCCCCTTTTGAAGGTGCCATTCTTATGAGCCAAAAGTTTGTCAATTTAAAGTTTCAATTTGAGGGAATAA  
CATGTAATATAATTTGAAATAAAGGTATAGTAACCTTAAAAAGAACATTATAACTGATTGTTGTGAATGGGGTGA  
ATTTGTTAAAAATGAGTAACCTTTGATAAAGTTTTTTCATGCACAGGCCAAAATGTATTCAGTAGATTTCTACGTAGTG  
ATCTGCTTTTACTTTGTAATTTGTAGTTCTCAAAAGACTTTTTTTTTAAAAAATAAAGTCCATACTTACACTT



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**FIGURE 62**

MNNQKQKPTLSGQRFKTRKRDEKERFDPTQFQDCIIQGLTETGTDLEAVAKFLDASGAKLDYRRYAETLFDILV  
AGGMLAPGGTLADDMMRTDVCVFAAQEDLETMQAFAQVFNKLIRRYKYLEKGFEDVKKLLFLKGFSESERNKL  
AMLTGVLLANGTLNASILNSLYNENLVKEGVSAFAVKLFKSWINEKDINAVAASLRKVSMDNRLMELFPANKQS  
VEHFTKYFTEAGLKEELSEYVRNQQTIGARKELQKELQEQMSRGDPFKDIILYVKEEMKKNNIPEPVVIGIVWSSV  
MSTVEWNKKEELVAEQAIKHLKQYSPLLAFTTQGOSELTLKKIQEYCYDNIHFMKAFQKIVVLFYKAEVLSEE  
PILKWYKDAHVAKGKSVFLEQMKKFVEWLKNAEESESEAEEGD

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**FIGURE 63A**

GGCACGAGGAAGGAGTCGGGGTCTTCCCCAGTTTTCTCAGCCAGGCGGGCGGGCGGCGACTGGCAATGTTTGGCCTC  
AAAAGAAACGCGGTAATCGGACTCAACCTCTACTGTGGGGGGGCGGGCTTGGGGGCGGGCAGCGGGCGGCCACC  
CGCCCGGGAGGGCGACTTTTGGCTACGGAGAAGGAGGCCTCGGCCCGGGCAGAGATAGGGGGGAGGGGAGGCCGGC  
GCGGTGATTGGCGGAAGCGCCGGCGCAAGCCCCCGTCCACCCTCACGCCAGACTCCCGGAGGGTTCGCGCGGGCCG  
CCGCCCATTGGCGCCGAGGTCCCCGACGTACCGCGACCCCCGCGAGGCTGCTTTTCTTCGCGCCCACCCGCCGC  
GCGGCGCCGCTTGAGGAGATGGAAGCCCCGGCCGCTGACGCCATCATGTGCCCCGAAGAGGAGCTGGACGGGTAC  
GAGCCGGAGCCTCTCGGGAAGCGGCCGGCTGTCTGCCGCTGCTGGAGTTGGTTCGGGAATCTGGTAATAACACC  
AGTACGGACGGGTCACTACCCTCGACGCCGCCGCGCAGAGGAGGAGGAGGACGAGTTGTACCGGCAGTCGCTG  
GAGATTATCTCTCGGTACCTTCGGGAGCAGGCCACCGGCGCCAAGGACACAAAGCCAATGGGCAGGTCTGGGGCC  
ACCAGCAGGAAGGCGCTGGAGACCTTACGACGGGTTGGGGATGGCGTGCAGCGCAACCACGAGACGGCCTTCCAA  
GGCATGCTTCGGAAACTGGACATCAAAAACGAAGACGATGTGAAATCGTTGTCTCGAGTGATGATCCATGTTTTT  
AGCGACGGCGTAACAACTGGGGCAGGATTGTGACTCTCATTCTTTTGGTGCCTTTGTGGCTAAACACTTGAAG  
ACCATAAACCAAGAAAGCTGCATCGAACCATTAGCAGAAAGTATCACAGACGTTCTCGTAAGGACAAAACGGGAC  
TGGCTAGTTAAACAAAGAGGCTGGGATGGGTTTGTGGAGTTCTTCCATGTAGAGGACCTAGAAGGTGGCATCAGG  
AATGTGCTGCTGGCTTTTGCAGGTGTTGCTGGAGTAGGAGCTGGTTTGGCATATCTAATAAGATAGCCTTACTGT  
AAGTGCAATAGTTGACTTTTAACCAACCACCACCACCACCAAAACAGTTTATGCAGTTGGACTCCAAGCTGTAA  
CTTCCTAGAGTTGCACCCTAGCAACCTAGCCAGAAAAGCAAGTGGCAAGAGGATTATGGCTAACAAGAATAAATA  
CATGGGAAGAGTGCTCCCCATTGATTGAAGAGTCACTGTCTGAAAGAAGCAAAGTTCAGTTTCAGCAACAAACAA  
ACTTTGTTTGGGAAGCTATGGAGGAGGACTTTTAGATTTAGTGAAGATGGTAGGGTGGAAAAGACTTAATTTCTT  
GTTGAGAACAGGAAAGTGGCCAGTAGCCAGGCAAGTCATAGAATTGATTACCCGCCGAATTCATTAATTTACTGT  
AGTGTTAAGAGAAGCACTAAGAATGCCAGTGACCTGTGTAAGATTACAAGTAATAGAACTATGACTGTAAGCCT  
CAGTACTGTACAAGGGAAGCTTTTCTCTCTCTAATTAGCTTTCCAGTATACTTCTTAGAAAGTCCAAGTGTTT  
AGGACTTTTATACCTGTTATACCTTTGGCTTGGTTTCCATGATTCTTACTTTATTAGCCTAGTTTATCACCATAA  
TACTTGACGGAAGGCTCAGTAATTAGTTATGAATATGGATATCCTCAATTCTTAAGACAGCTTGTAATGTATTT  
GTAAAAATTGTATATATTTTTTACAGAAAGTCTATTTCTTTGAAACGAAGGAAGTATCGAATTTACATTAGTTTTT  
TTCATACCCTTTTGAACCTTTGCAACTTCCGTAATTAGGAACCTGTTTCTTACAGCTTTTCTATGCTAAACTTTGT  
TCTGTTAGTTCTAGAGTGATACAGAACGAATTGATGTGTAAGTGTATGCAGACTGGTTGTAGTGGAACAAATC  
TGATAACTATGCAGGTTTAAATTTTCTATCTGATTTTGGTAAGTATTCCTTAGATAGGTTTTTCTTTGAAAACC  
TGGGATTGAGAGGTTGATGAATGGAAATCTTTCACTTCAATTATGCAAGTTTTCAATAATTAGGTCTAAGTGG  
AGTTTTAAGGTTACTGATGACTTACAAATAATGGGCTCTGATTGGGCAATACTCATTGAGTTCTTCCATTGGA  
CCTAATTTAACTGGTGAAATTTAAAGTGAATTCATGGGCTCATCTTTAAAGCTTTTACTAAAAGATTTTACGCTG  
AATGGAATCATTAGCTGTGTGCATATAAAAAGATCACATCAGGTGGATGGAGAGACATTTGATCCCTTGTGTTGC  
TTAATAAATTATAAAATGATGGCTTGGAAAAGCAGGCTAGTCTAACCATGGTGCTATTATTAGGCTTGCTTGTTA  
CACACACAGGTCTAAGCCTAGTATGTCAATAAAGCAAATACTTACTGTTTTGTTTCTATCAGACTTAACCTTTTATTT  
TTGTTGCAAGTTTTTGCATTGGCATCTTTGGATTTCAGTCTTGATGTTTGTCTATCAGACTTAACCTTTTATTT  
CCTGTCTTCTTGAATTTGCTGATTGTTCTGCTCCCTCTACAGATATTTATATCAATTCCTACAGCTTTCCCTT  
GCCATCCCTGAACCTTTTCTAGCCCTTTTAGATTTTGGCACTGTGAAACCCCTGCTGGAAACCTGAGTGACCTC  
CCTCCCCACCAAGAGTCCACAGACCTTTTCATCTTTCACGAACTTGATCCTGTAGCAGGTGGTAATACCATGGGT  
GCTGTGACACTAACAGTCATTGAGAGGTGGGAGGAAGTCCCTTTTCTTGGACTGGTATCTTTCAACTATTGTT  
TTATCCTGTCTTTGGGGGCAATGTGTCAAAGTCCCTCAGGAATTTTACAGAGGAAAGAACATTTTATGAGGCTT  
TCTCTAAAGTTTCTTTGTATAGGAGTATGCTCACTTAAATTTACAGAAAGAGGTGAGCTGTGTTAAACCTCAGA  
GTTTAAAGCTACTGATAAACTGAAGAAAGTGTCTATATTGGAAGTGGGTCATTTGAAAGCTTCAGTCTCGGAA  
CATGACCTTTAGTCTGTGGACTCCATTTAAAAATAGGTATGAATAAGATGACTAAGAATGTAATGGGGAAGAACT  
GCCCTGCCTGCCCATCTCAGAGCCATAAGGTCATCTTTGCTAGAGCTATTTTTACCTATGTATTTATCGTTCTTG  
ATCATAAGCCGCTTATTTATATCATGTATCTCTAAGGACCTAAAAGCACTTTATGTAGTTTTTAATTAATCTTAA  
GATCTGGTTACGGTAACATAAAAAAGCCTGTCTGCCAAATCCAGTGGAACAAGTGCATAGATGTGAATTGGTTTT  
TAGGGGCCCCACTTCCCAATTCATTAGGTATGACTGTGGAATACAGACAAGGATCTTAGTTGATATTTTGGGCT  
TGGGGCAGTGAGGGCTTAGGACACCCCAAGTGGTTTGGGAAAGGAGGAGGGAGTGGTGGGTTTTATAGGGGAGG

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**FIGURE 63B**

AGGAGGCAGGTGGTCTAAGTGCTGACTGGCTACGTAGTTTGGGCAAATCCTCCAAAAGGGAAAGGGAGGATTTGC  
TTAGAAGGATGGCGCTCCCAGTGACTACTTTTGGACTTCTGTTTGTCTTACGCTTCTCTCAGGGAAAAACATGCA  
GTCCTCTAGTGTTTCATGTACATTCTGTGGGGGGTGAACACCTTGGTTCTGGTTAAACAGCTGTACTTTTGATAG  
CTGTGCCAGGAAGGGTTAGGACCAACTACAAATTAATGTTGGTTGTCAAATGTAGTGTGTTTCCCTAACTTTCTG  
TTTTTCCTGAGAAAAAAAATAAATCTTTATTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 64**

MFGLKRNAVIGLNLYCGGAGLGAGSGGATRPGGRLATEKEASARREIGGGEAGAVIGGSAGASPPSTLTPDSRR  
VARPPPIGAEVPDVTATPARLLFFAPTRRAAPLEEMEAPAADAIMSPEEELDGYEPEPLGKRPAVLPLLELVGES  
GNNTSTDGSLPSTPPPAEEEEDELYRQSLEIIISRYLREQATGAKDTKPMGRSGATSRKALETLRRVGDGVQRNHE  
TAFQGMLRKLDIKNEDDVKSLSRVMIHVFS DGVTNWGRIVTLISFGAFVAKHLKTINQESCIEPLAESITDVLVR  
TKRDWLVKQRGWDGFVEFFHVEDLEGGIRNVLLAFAGVAGVGAGLAYLIR

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**FIGURE 65**

TCCGGCAACGCCAACCGCTCCGCTGCGCGCAGGCTGGGCTGCAGGCTCTCGGCTGCAGCGCTGGGCTGGTGTGCA  
GTGGTGCACCACGGCTCACGGCAGCCTCAGCCACCCAGATGTAAGCGATCTGGTTCCACCTCAGCCTCCCGAG  
TAGTGGATCTAGGATCCGGCTTCCAACATGTGGCAGCTCTGGGCCTCCCTCTGCTGCCTGCTGGTGTGGCCAAT  
GCCCCGAGCAGGCCCTCTTTCCATCCCCTGTCGGATGAGCTGGTCAACTATGTCAACAAACGGAATACCACGTGG  
CAGGCCGGGCACAACCTTCTACAACGTGGACATGAGCTACTTGAAGAGGCTATGTGGTACCTTCCTGGGTGGGCCC  
AAGCCACCCAGAGAGTTATGTTTTACCGAGGACCTGAAGCTGCCTGCAAGCTTCGATGCACGGGAACAATGGCCA  
CAGTGTCCCACCATCAAAGAGATCAGAGACCAGGGCTCCTGTGGCTCCTGCTGGGCCTTCGGGGCTGTGGAAGCC  
ATCTCTGACCGGATCTGCATCCACACCAATGCGCACGTGAGCTGGAGGTGTGCGCGGAGGACCTGCTCAGATGC  
TGTGGCAGCATGTGTGGGGACGGCTGTAATGGTGGCTATCCTGCTGAAGCTTGGAACCTTCTGGACAAGAAAAGGC  
CTGGTTTCTGGTGGCCTCTATGAATCCCATGTAGGGTGCAGACCGTACTCCATCCCTCCCTGTGAGCACCACGTC  
AACGGCTCCCGGCCCCCATGCACGGGGGAGGGAGATACCCCCAAGTGTAGCAAGATCTGTGAGCCTGGCTACAGC  
CCGACCTACAAACAGGACAAGCACTACGGATAACAATTCCTACAGCGTCTCCAATAGCGAGAAGGACATCATGGCC  
GAGATCTACAAAAACGGCCCCGTGGAGGGAGCTTTCTCTGTGTATTTCGGACTTCCTGCTCTACAAGTCAGGAGTG  
TACCAACACGTCACCGGAGAGATGATGGGTGGCCATGCCATCCGCATCCTGGGCTGGGGAGTGGAGAATGGCACA  
CCCTACTGGCTGGTTGCCAACTCCTGGAACACTGACTGGGGTGACAATGGCTTCTTTAAATACTCAGAGGACAG  
GATCACTGTGGAATCGAATCAGAAGTGGTGGCTGGAATTCCACGCACCGATCAGTACTGGGAAAAGATCTAATCT  
GCCGTGGGCCTGTCGTGCCAGTCCCTGGGGGCGAGATCGGGGTAGAAATGCATTTTATTCTTTAAGTTCACGTAAG  
ATACAAGTTTCAGGCAGGGTCTGAAGGACTGGATTGGCCAAACATCAGACCTGTCTTCCAAGGAGACCAAGTCCT  
GGCTACATCCCAGCCTGTGGTTACAGTGCAGACAGGCCATGTGAGCCACCGCTGCCAGCACAGAGCGTCCTTCCC  
CCTGTAGACTAGTGCCGTGGGAGTACCTGCTGCCCAGCTGCTGTGGCCCCCTCCGTGATCCATCCATCTCCAGGG  
AGCAAGACAGAGACGCAGGATGGAAAGCGGAGTTCCTAACAGGATGAAAGTTCCCCCATCAGTTCCCCCAGTACC  
TCCAAGCAAGTAGCTTTCCACATTTGTACAGAAATCAGAGGAGAGATGGTGTGGGAGCCCTTTGGAGAACGCC  
AGTCTCCAGGTCCCCCTGCATCTATCGAGTTTGCAATGTACAACTCTCTGATCTTGTGCTCAGCATGATTCTT  
TAATAGAAGTTTTATTTTTTCGTGCACTCTGCTAATCATGTGGGTGAGCCAGTGGAAACAGCGGGAGCCTGTGCTGG  
TTTGCAGATTGCCCTCCTAATGACGCGGCTCAAAAGGAAACCAAGTGGTCAGGAGTTGTTTCTGACCCACTGATCT  
CTACTACCACAAGGAAAATAGTTTAGGAGAAACAGCTTTTACTGTTTTTGAAAAATTACAGCTTCACCCTGTCA  
AGTTAACAAGGAATGCCTGTGCCAATAAAAGGTTTCTCCAACCTGA

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**FIGURE 66**

MWQLWASLCCLLVLANARSRPSFHPLSDELVNYVNKRNTTWQAGHNFYNVDMSYLRKLCGTFLGGPKPPQRMFT  
EDLKLPA SFDAREQWPQCPTIKEIRDQSGSCGSCWAFGAVEAISDRICIHTNAHVSVEVSAEDLLTCCGSMCGDGC  
NGGYPAEAWNFWTRKGLVSGGLYESHVGC RPYSIPPCEHHVN GSRPPCTGEGDTPKCSKICEPGYSPTYKQDKHY  
GYNSYSVSNSEKDIMAEIYKNGPVEGAFSVYSDFLLYKSGVYQHVTGEMMGHAI RILGWGVENGTPYWL VANSW  
NTDWGDNGFFKILRGQDHCGIESEVVAGIPRTDQYWEKI

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**FIGURE 67A**

TATACTTCGCTACTTGGCTAGAGTTGCAACTACAGCTGGGTTATATGGCTCTAATCTGATGGAACATACTGAGAT  
TGATCACTGGTTGGAGTTCAGTGCTACAAAATTATCTTCATGTGATTCCCTTTACTTCTACAATTAATGAACTCAA  
TCATTGCCTGTCTCTGAGAACATACTTAGTTGGAACTCCTTGAGTTTAGCAGATTTATGTGTTTGGGCCACCCT  
AAAAGGAAATGCTGCCTGGCAAGAACAGTTGAAACAGAAGAAAGCTCCAGTTCATGTAAACGTTGGTTTGGCTT  
TCTTGAAGCCCAGCAGGCCTTCCAGTCAGTAGGTACCAAGTGGGATGTTTCAACAACCAAAGCTCGAGTGGCACC  
TGAGAAAAAGCAAGATGTTGGGAAATTTGTTGAGCTTCCAGGTGCGGAGATGGGAAAGGTTACCGTCAGATTTCC  
TCCAGAGGCCAGTGGTTACTTACACATTGGGCATGCAAAAGCTGCTCTTCTGAACCAGCACTACCAGGTTAACTT  
TAAAGGGAAACTGATCATGAGATTTGATGACACAAATCCTGAAAAAGAAAAGGAAGATTTTGAGAAGGTTATCTT  
GGAAGATGTTGCAATGTTGCATATCAAACCAGATCAATTTACTTATACTTCGGATCATTITGAAACTATAATGAA  
GTATGCAGAGAAGCTAATTCAGAAGGGGAAGGCTTATGTGGATGATACTCCTGCTGAACAGATGAAAGCAGAACG  
TGAGCAGAGGATAGAATCTAAACATAGAAAAACCCCTATTGAGAAGAATCTACAAATGTGGGAAGAAATGAAAA  
AGGGAGCCAGTTTGGTCACTCCTGTTGTTTGGCAGCAAAAATTGACATGAGTAGTAACAATGGATGCATGAGAGA  
TCCAACCCCTTTATCGCTGCAAAATTCACCACATCCAAGAAGCTGGAAATAAATACAATGTTTATCCAACATATGA  
TTTTGCCTGCCCATAGTTGACAGCATCGAAGGTGTTACACATGCCCTGAGAACAACAGAATACCATGACAGAGA  
TGAGCAGTTTTACTGGATTATTGAAGCTTTAGGCATAAGAAAACCATATATTTGGGAATATAGTCGGCTAAATCT  
CAACAACACAGTGCTATCCAAAAGAAAACCTCACATGGTTTGCAATGAAGGACTAGTAGATGGATGGGATGACCC  
AAGATTTCTACGGTTCGTGGTGTACTGAGAAGAGGGATGACAGTTGAAGGACTGAAACAGTTTATTGCTGCTCA  
GGGCTCCTCACGTTTCACTCGTGAACATGGAGTGGGACAAAATCTGGGCGTTTAAACAAAAGGTTATTGACCCAGT  
GGCTCCACGATATGTTGCATTACTGAAGAAAGAAGTGATCCAGTGAATGTACCTGAAGCTCAGGAGGAGATGAA  
AGAAGTAGCCAAACACCCAAAGAATCCTGAGGTTGGCTTGAAGCCTGTGTGGTATAGTCCCAAAGTTTTTATTGA  
AGGTGCTGATGCAGAGACTTTTTTCGGAGGGTGAGATGGTTACATTTATAAATTGGGGCAACCTCAACATTACAAA  
AATACACAAAAATGCAGATGGAAAAATCATATCTCTTGATGCAAAGTTTAATTTGGAAAACAAAGACTACAAGAA  
AACCCTAAGGTCACTTGGCTTGCAGAGACTACACATGCTCTTCTTATCCAGTAATCTGTGTCACTTATGAGCA  
CTTGATCACAAAGCCAGTGCTAGGAAAAGACGAGGACTTTAAGCAGTATGTCAACAAGAACAGTAAGCATGAAGA  
GCTAATGCTAGGGGATCCCTGCCTTAAGGATTTGAAAAAAGGAGATATTATACAACCTCCAGAGAAGAGGATTCTT  
CATATGTGATCAACCTTATGAACCTGTTAGCCCATATAGTTGCAAGGAAGCCCCGTGTGTTTTGATATACATTCC  
TGATGGGCACACAAAGGAAATGCCAACATCAGGGTCAAAGGAAAAGACCAAAGTAGAAGCCACAAAAAATGAGAC  
CTCTGCTCCTTTTAAGGAAAGACCAACACCTTCTCTGAATAATAATTGTACTACATCTGAGGATTCCTTGGTCTT  
TTACAATAGAGTGGCTGTTCAAGGAGATGTGGTTTCTGAATTTAAAGCCAAAGAAAGCACCAAAGGAAGATGTAGA  
TGCAGCTGTAAAACAGCTTTTGTCTTTGAAAGCTGAATATAAGGAGAAAACTGGCCAGGAATATAAACCTGGAAA  
CCCTCTGCTGAAATAGGACAGAATATTTCTTCTAATTCCTCAGCAAGTATTCTGGAAAGTAAATCTCTGTATGA  
TGAAGTTGCTGCACAAGGGGAGGTGGTTTCTGAAGCTAAAAGCTGAAAAATCCCCTAAGGCTAAAATAAATGAAGC  
TGTAAGATGCTTACTGTCCCTGAAGGCTCAGTATAAAGAAAAAACTGGGAAGGAGTACATACCTGGTCAGCCCCC  
ATTATCTCAAAGTTCGGATTCAAGCCCAACCAGAAATTTCTGAACCTGCTGGTTTAGAAACACCAGAAGCGAAAGT  
ACTTTTTGACAAAGTAGCTTCTCAAGGGGAAGTAGTTCGGAAAACCTTAAACTGAAAAAGCCCCCTAAGGATCAAGT  
AGATATAGCTGTTCAAGAACTCCTTCAGCTAAAGGCACAGTACAAGTCTTTGATAGGAGTAGAGTATAAGCCTGT  
GTCGGCCACTGGAGCTGAGGACAAAGATAAGAAGAAGAAAGAAAAAGAAAATAAATCTGAAAAGCAGAATAAGCC  
TCAGAAAACAAAATGATGGCCAAAGGAAAGACCCTTCTAAAAACCAAGGAGGTGGGCTCTCATCAAGTGAGCAGG  
AGAAGGGCAGGGGCCCTAAGAAACAGACCAGGTTGGGTCTTGAGGCAAAAAAAGAAGAAAATCTTGCTGATTGGTA  
TTCTCAGGTCAATCACAAAGTCAGAAATGATTGAATACCATGACATAAGTGGCTGTTATATTCTTCGTCCCTGGGC  
CTATGCCATTTGGGAAGCCATCAAGGACTTTTTTGTATGCTGAGATCAAGAACTTGGTGTGAAAACCTGCTACTT  
CCCCATGTTTGTGTCTCAAAGTGCATTAGAGAAAGAGAAGACTCATGTTGCTGACTTTGCCCCAGAGGTTGCTTG  
GGTTACAAGATCTGGCAAAACCGAGCTGGCAGAACCAATTGCCATTGCTCCTACTAGTGAAACAGTAATGTATCC  
TGCATATGCAAAATGGGTACAATCACACAGAGACCTGCCCATCAAGCTCAATCAGTGGTGCAATGTGGTGCGTTG  
GGAATCAAGCATCCTCAGCCTTTCTTACGTACTCGTGAATTTCTTTGGCAGGAAGGGCACAGTGCTTTTGCTAC  
CATGGAAGAGGCAGCGGAAGAGGTCTTGACGATACTTGACTTATATGCTCAGGTATATGAAGAACTCCTGGCAAT  
TCCTGTTGTTAAAGGAAGAAAGACGGAAAAGGAAAAATTTGCAGGAGGAGACTATACAACCTACAATAGAAGCATT  
TATATCTGCTAGTGGAAGAGCTATCCAGGGAGGAACATCACATCATTTAGGGCAGAAATTTTCCAAATGTTTGA

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**FIGURE 67B**

AATCGTTTTTGAAGATCCAAAGATACCAGGAGAGAAGCAATTTGCCTATCAAACTCCTGGGGCCTGACAACTCG  
AACTATTGGTGTTATGACCATGGTTCATGGGGACAACATGGGTTTAGTATTACCACCCCGTGTAGCATGTGTTCA  
GGTGGTGATTATTCCTTGTGGCATTACCAATGCACTTTCTGAAGAAGACAAAGAAGCGCTGATTGCAAAATGCAA  
TGATTATCGAAGGCGATTACTCAGTGTTAACATCCGCGTTAGAGCTGATTACGAGATAATTATTCTCCAGGTTG  
GAAATTCAATCACTGGGAGCTCAAGGGAGTTCCCATTAGACTTGAAGTTGGGCCACGTGATATGAAGAGCTGTCA  
GTTTGTAGCCGTCAGACGAGATACTGGAGAAAAGCTGACAGTTGCTGAAAATGAGGCAGAGACTAAACTTCAAGC  
TATTTTGGGAAGACATCCAGGTCACCCTTTTTACAAGGGCTTCTGAAGACCTTAAGACTCATATGGTTGTGGCTAA  
TACAATGGAAGACTTTTCAAGATACTAGATTCTGGAAAGATTGTTTCAAGATTCCATTCTGTGGGGAAATTGACTG  
TGAGGACTGGATCAAAAAGACCACTGCCAGGGATCAAGATCTTGAACCTGGTGCTCCATCCATGGGAGCTAAAAG  
CCTTTGCATCCCCCTTCAAACCACTCTGTGAAGTGCAGCCTGGAGCCAAATGTGTCTGTGGCAAGAACCCTGCCAA  
GTACTACACCTTATTTGGTCGCAGCTACTTGAGGGATGAACGAAAGCCCCCTCTTCAACTCCTCTCACTTTTTAAA  
GCATTGATATTAGTATCTTCTCAGATACAGACCGTTTTATGATTTTTTAAAAAGTAAAAGTTCTAAAATGAAGTC  
ACACAGGACAATTATTCTTATGCCTAAGTTAACAGTGGATAAAAGACTTTTCTGTAAACAACCTCCAGTAATAAAT  
ATCATGAACATA



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**FIGURE 68**

MEHTEIDHWLEFSATKLSSCDSFTSTINELNHCLSLRXYLVGNSLSLADLCVWATLKGNAAWQEQLKQKKAPVHV  
KRWFGEFLEAQQAFQSVGKWDVSTTKARVAPEKKQDVGKFVELPGAEMGKVTVRFPPEASGYLHIGHAKAALLNQ  
HYQVNFKGKGLIMRFDNPEKEKEDFEKVILEDVAMLHIKPDQFTYTSDFETIMKYAEKLIQEGKAYVDDTPAE  
QMKAREQRIESKHKRNPIEKNLQMWEEEMKKSQFGHSCCLRAKIDMSSNNGCMRDPTLYRCKIQPHPRGTGNKYN  
VYPTYDFACPIVDSIEGVTHALRTTEYHNRDEQFYWIEALGIRKPYIWEYSRLNLNNTVLSKRKLTWVNEGLV  
DGWDDPRFPTVRGVLRRGMTVEGLKQFIAAQGSSRSVVMWEDKIWAFNKKVIDPVAPRYVALLKKEVIPVNVPE  
AQEEMKEVAKHPKNPEVGLKPVWYSPKVFIEGADAETFSEGEMVTFINWGNLNTKIHKNDGKIIISLDAKFNLE  
NKDYKKTTKVTWLAETTHALPIPVICVTYEHLITKPVLGKDEDFKQYVNKNSKHEELMLGDPCLKDLKKGDIQQL  
QRRGFFICDQPYEPVSPYSCKEAPCVLIYIPDGHTKEMPTSGSKEKTKVEATKNETSAPFKERPTPSLNNNCTTS  
EDSLVLYNRVAVQGDVVRELKAKKAPKEDVDAAVKQLLSLKAQYKEKTGQYKPGNPPAEIGQNISSNSSASILE  
SKSLYDEVAAQGEVVRKLKAESPKAKINEAVECLLSLKAQYKEKTGKEYIPGQPPLSQSSDSSPTRNSEPAGLE  
TPEAKVLFDKVASQGEVVRKLKTEKAPKDQVDIAVQELLQLKAQYKSLIGVEYKPVSAATGAEDKDKKKKEKENKS  
EKQNKPKQNDGQRKDPKSNQGGGLSSSGAGEGQGPQKQTRLGLEAKKEENLADWYSQVITKSEMIEYHDISGCY  
ILRPWAYAIWEAIKDFDAEIKKLGVENCYFPMFVSQSALEKEKTHVADFAPVAVVTRSGKTELAEP IAIRPTS  
ETVMYPAYAKWVQSHRDLPIKLNQWCNVVRWEFKHPQPFLLRTREFLWQEGHSAFATMEEAAEEVLQILDLYAQVY  
EELLAIPVVKGRKTEKEKFAGGDYTTTIEAFISASGRAIQGGTSHHLGQNF SKMFEIVFEDPKIPGEKQFAYQNS  
WGLTTRTIGVMTMVHGDNMGLVLPVRVACVQVVIIPCGITNALSEEDKEALIAKCNDYRRRLSVNIRVRADLRD  
NYS PGWKFNHWELKGVP IRLVVGPRDMKSCQFVAVRRDTGEKLTVAENEAETKLQAILEDIQVTLFTRASEDLKT  
HMMVANTMEDFQKILDSGKIVQIPFCGEIDCEDWIKKTTARDQDLEPGAPSMGAKSLCIPFKPLCELQPGAKCVC  
GKNPAKYTTLFGRSY

[illegible]

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**FIGURE 70**

MGTRDDEYDYLFKVVLIGDSGVGKSNLLSRFTRNEFNLESKSTIGVEFATR SIQVDGKTIKAQIWDTAGQERYRA  
ITSAYYRGAVGALLVYDIAKHLTYENVERWLKELRDHADSNI VIMLVGNKSDLRHLRAVPTDEARAF AEKNGLSF  
IETSALDSTNVEAAFQILTEIYRIVSQKQMSDRRENDMSPSNNVPIHVPPTTENKPKVQCCQNI

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**FIGURE 71A**

AGCGGGGCGGGGCGCCAGCGCTGCCTTTTCTCCTGCCGGGTAGTTTCGCTTTCCTGCGCAGAGTCTGCGGAGGGG  
CTCGGCTGCACCGGGGGGATCGCGCCTGGCAGACCCAGACCGAGCAGAGGCGACCCAGCGCGCTCGGGAGAGGC  
TGCACCGCCGCGCCCCCGCCTAGCCCTTCCGGATCCTGCGCGCAGAAAAGTTTCATTGCTGTATGCCATCCTCG  
AGAGCTGTCTAGGTTAACGTTTCGACTCTGTGTATATAACCTCGACAGTCTTGGCACCTAACGTGCTGTGCGTAG  
CTGCTCCTTTGGTTGAATCCCCAGGCCCTTGTGGGGCACAAAGGTGGCAGGATGCTCAGTGGTACGAACTTCAG  
CAGCTTGACTCAAAATTCCTGGAGCAGGTTACCCAGCTTTATGATGACAGTTTTCCCATGGAAATCAGACAGTAC  
CTGGCACAGTGGTTAGAAAAGCAAGACTGGGAGCACGCTGCCAATGATGTTTCATTGCGCACCATCCGTTTTTCAT  
GACCTCCTGTACAGCTGGATGATCAATATAGTCGCTTTTCTTTGGAGAATAACTTCTTGCTACAGCATAACATA  
AGGAAAAGCAAGCGTAATCTTCAGGATAATTTTCAGGAAGACCCCAATCCAGATGTCTATGATCATTTACAGCTGT  
CTGAAGGAAGAAAGGAAAATCTGGAAAACGCCCAGAGATTTAATCAGGCTCAGTCGGGGAATATTCAGAGCACA  
GTGATGTTAGACAAACAGAAAGAGCTTGACAGTAAAGTCAGAAATGTGAAGGACAAGGTTATGTGTATAGAGCAT  
GAAATCAAGAGCCTGGAAGATTTACAAGATGAATATGACTTCAAATGCAAAACCTTGCAGAACAGAGAACACGAG  
ACCAATGGTGTGGCAAAGAGTGATCAGAAAACAAGAACAGCTGTTACTCAAGAAGATGTATTTAATGCTTGACAAAT  
AAGAGAAAGGAAGTAGTTCACAAAATAATAGAGTTGCTGAATGTCACCTGAACCTTACCCAGAATGCCCTGATTAAT  
GATGAACCTAGTGGAGTGGAAAGCGGAGACAGCAGAGCGCTGTATTGGGGGGCCGCCAATGCTTGCTTGATCAG  
CTGCAGAACTGGTTCACTATAGTTGCGGAGAGTCTGCAGCAAGTTCGGCAGCAGCTTAAAAAGTTGGAGGAATTG  
GAACAGAAATACACCTACGAACATGACCCTATCACAAAAACAAACAAGTGTATGGGACCGCACCTTCAGTCTT  
TTCCAGCAGCTCATTAGAGCTCGTTTGTGGTGAAAGACAGCCCTGCATGCCAACGCACCCTCAGAGGCCGCTG  
GTCTTGAAGACAGGGGTCCAGTTCACTGTGAAGTTGAGACTGTTGGTGAAATTGCAAGAGCTGAATTATAATTTG  
AAAGTCAAAGTCTTATTTGATAAAGATGTGAATGAGAGAAATACAGTAAAAGGATTTAGGAAGTTCAACATTTTG  
GGCACGCACACAAAAGTGATGAACATGGAGGAGTCCACCAATGGCAGTCTGGCGGCTGAATTTGGGCACCTGCAA  
TTGAAAGAACAGAAAAATGCTGGCACCAGAACGAATGAGGGTCTCTCATCGTTACTGAAGAGCTTCACTCCCTT  
AGTTTTGAAACCAATTGTGCCAGCCTGGTTTGTAATTGACCTCGAGACGACCTCTCTGCCCGTTGTGGTGATC  
TCCAACGTCAGCCAGCTCCCGAGCGGTTGGGCCTCCATCCTTTGGTACAACATGCTGGTGGCGGAACCCAGGAAT  
CTGTCTTCTTCTGACTCCACCATGTGCACGATGGGCTCAGCTTTCAGAAGTGCTGAGTTGGCAGTTTTCTTCT  
GTCACCAAAAGAGGTCTCAATGTGGACCAGCTGAACATGTTGGGAGAGAAGCTTCTTGGTCTTAACGCCAGCCCC  
GATGGTCTCATTCCGTGGACGAGGTTTTGTAAGGAAAATATAAATGATAAAAATTTTCCCTTCTGGCTTTGGATT  
GAAAGCATCCTAGAACTCATTAAAAAACACCTGCTCCCTCTCTGGAATGATGGGTGCATCATGGGCTTCATCAGC  
AAGGAGCGAGAGCGTGCCCTGTTGAAGGACCAGCAGCCGGGGACCTTCTGCTGCGGTTAGTGAGAGCTCCCGG  
GAAGGGGCCATCACATTCACATGGGTGGAGCGGTCCAGAACGGAGGCGAACCTGACTTCCATGCGGTTGAACCC  
TACACGAAGAAAGAACTTTCTGCTGTTACTTTCCCTGACATCATTCGCAATTACAAAGTCATGGCTGCTGAGAAT  
ATTCTGAGAATCCCCTGAAGTATCTGTATCCAAATATTGACAAAAGACCATGCCTTTGGAAAGTATTACTCCAGG  
CCAAAGGAAGCACCAGAGCCAATGGAACCTGATGGCCCTAAAGGAACCTGGATATATCAAGACTGAGTTGATTTCT  
GTGTCTGAAGTTCACCTTCTAGACTTCAGACCACAGACAACCTGCTCCCCATGTCTCCTGAGGAGTTTGACGAG  
GTGTCTCGGATAGTGGGCTCTGTAGAATTCGACAGTATGATGAACACAGTATAGAGCATGAATTTTTTTCATCTT  
CTCTGGCGACAGTTTTCTTCTCATCTGTGATTCCCTCCTGCTACTCTGTTCCCTTCACATCCTGTGTTTCTAGGG  
AAATGAAAGAAAGGCCAGCAAATTCGCTGCAACCTGTTGATAGCAAGTGAATTTTTCTCTAACTCAGAAACATCA  
GTTACTCTGAAGGGCATCATGCATCTTACTGAAGGTAAAATTGAAAGGCATTCTCTGAAGAGTGGGTTTACAAG  
TGAAAAACATCCAGATACACCCAAAGTATCAGGACGAGAATGAGGGTCTCTTGGGAAAGGAGAAGTTAAGCAACA  
TCTAGCAAATGTTATGCATAAAGTCAGTGCCCAACTGTTATAGGTTGTTGGATAAATCAGTGGTTATTTAGGGAA  
CTGCTTGACGTAGGAACGGTAAATTTCTGTGGGAGAATTCTTACATGTTTTCTTTGCTTTAAGTGTAACCTGGCAG  
TTTTCCATTGGTTTACCTGTGAAATAGTTCAAAGCCAAGTTTATATACAATTATATCAGTCCTCTTCAAAGGTA  
GCCATCATGGATCTGGTAGGGGGAATGTGTATTTTATTACATCTTTCACATTGGCTATTTAAAGACAAAGACA  
AATTCTGTTTCTTGAGAAGAGAATATTAGCTTTACTGTTTGTATGGCTTAATGACACTAGCTAATATCAATAGA  
AGGATGTACATTTCCAAATTCACAAGTTGTGTTGATATCCAAAGCTGAATACATTCTGCTTTTCATCTTGCTCAC  
ATACAATTATTTTACAGTTCTCCAAGGGAGTTAGGCTATTACAAACCACTCATTCAAAGTTGAAATTAACCA  
TAGATGTAGATAAACTCAGAAATTTAATTCATGTTTCTTAAATGGGCTACTTTGTCTTTTTGTTATTAGGGTGG  
TATTTAGTCTATTAGCCACAAAATTTGGGAAAGGAGTAGAAAAAGCAGTAACTGACAACTTGAATAATACACCAGA

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**FIGURE 71B**

GATAATATGAGAATCAGATCATTTCAAAACCTCATTTCCTATGTAACCTGCATTGAGAAGCTGCATATGTTTCGCTGA  
TATATGTGTTTTTCACATTTGCGAATGGTTCCATTCTCTCTCCTGTACTTTTTCCAGACACTTTTTTGAGTGGAT  
GATGTTTCGTGAAGTATACTGTATTTTTACCTTTTTCTTCCTTATCACTGACACAAAAAGTAGATTAAGAGATG  
GGTTTGACAAGGTTCTTCCCTTTTACATACTGCTGTCTATGTGGCTGTATCTTGTTTTTCCACTACTGCTACCAC  
AACTATATTATCATGCAAATGCTGTATTCTTCTTTGGTGGAGATAAAGATTTCTTGAGTTTTGTTTTAAAATTAA  
AGCTAAAGTATCTGTATTGCATTAAATATAATATGCACACAGTGCTTTCCGTGGCACTGCATACAATCTGAGGCC  
TCCTCTCTCAGTTTTTATATAGATGGCGAGAACCTAAGTTTCAGTTGATTTTACAATTGAAATGACTAAAAACA  
AAGAAGACAACATTAAAAACAATATTGTTTCTA

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**FIGURE 72**

MSQWYELQQLD SKFLEQVHQLYDDSFPM EIRQYLAQWLEKQDWEHAANDVSFATIRFHDLLS QLDDQYSRFSLEN  
NFL LQHNIRKSKRN LQDNFQEDPIQMSMI IY SCLKEERKILENAQRFNQAQSGNIQSTVMLDKQKELDSKVRNVK  
DKVMCIEHEIKSLEDLQDEYDFKCKTLQNREHETNGVAKSDQKQEQLLLKKMYLMLDNKRKEVVHKI IELLNVTE  
LTQNALINDELVEWKRRQQSACIGGPPNACL DQLQNWFTTIVAESLQQVRQQLKKLEELEQKYTYEHDPITKNKQV  
LWDRTFSLFQQLIQSSFVVERQPCMPHPQRPLVLKTGVQFTVKLRLLVKLQELNYNLKVVLFDKDVNERNTVK  
GFRKFNILGTHTKVMNMEESTNGSLAAEFRHLQLKEQKNAGTRTNEGPLIVTEELHSLSFETQLCQPGGLVIDLET  
TSLPVVISNVSQLPSGWASILWYNMLVAEPRNLSFFLTPPCARWAQLSEVLSWQFSSVTKRGLNVDQLNMLGEK  
LLGPNASPDGLIPWTRFCKENINDKNFPFWLWIESILELIKHHLLPLWNDGCIMGFISKERERALLKDQQPGTFL  
LRFSESSREGAITFTWVERSQNGGEPDFHAVEPYTKKELSAVTFPDIIRNYKVMAAENIPENPLKYLYPNIDKDH  
AFGKYYSRPKEAPEPEMELDGPKGTGYIKTELISVSEVHPSRLQTTDNLLPMSPEEFDEVSRIVGSVEFDSMMNTV

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**FIGURE 73**

CTAGAATTCAGCGCCGCTGAATTCTAGACCCGGATGAAGAGTAACGCCATTACCGCCCGAGCCGCGAGAGCCT  
TAGCCGACGGAACTGGACACTGGACCGGCAGCGCCATCAGACTCCTCCCCGCTTGCTGCTGCTTCTCTTACTC  
GTGTTCCCTGCCACTGTCTTGTTCGAGGCGGCCCCAGAGGCTCGTTAGCAGTGGCACAAGATCTTACAGAGGAT  
GAAGAAACAGTAGAAGATTCCATAATTGAGGATGAAGATGATGAAGCCGAGGTAGAAGAAGATGAACCCACAGAT  
TTGGTAGAAGATAAAGAGGAAGAAGATGTGTCTGGTGAACCTGAAGCTTCACCGAGTGCAGATACAACCTATACTG  
TTGTAAAAGGAGAAGATTTTCCAGCAAATAACATTGTGAAGTTCCTGGTAGGCTTTACCAACAAGGTACAGAA  
GATTTTATTGTTGAATCCTTAGATGCCTCATTCCGTTATCCTCAGGACCACCAGTTTTATATCCAGAATTTTACA  
GCTCTTCCTCTGAACACTGTAGTGCCACCCAGAGACAGGCAACTTTTGAAGTACTCTTTCATTCTGCAGAGCCC  
ATGGGCGGACGACCATTGGTTTGGTTCATCAATCTGAACCTACAAAAGATTGAACGGCAATGTATTCCAAGATGCA  
GTCTTCAATCAAACAGTTACAGTTATTGAAAGAGAGGATGGGTTAGATGGAGAAACAATCTTTATGTATATGTTT  
CTTGCTGGTCTTGGGCTTCTGGTTATTGTTGGCCTTCATCAACTCCTAGAATCTAGAAAGCGTAAGAGACCCATA  
CAGAAAGTAGAAATGGGTACATCAAGTCAGAATGATGTTGACATGAGTTGGATTCTCAGGAAACATTGAATCAA  
ATCAATAAAGCTTCACCAAGAAGGTTGCCAGGAAACGGGCACAGAAGAGATCAGTGGGATCTGATGAGTAAATG  
TTCTTTGTGCAACAATTCGGTCTTTACTTAACCTGCCCTAATATTTTTCGGCCTGATGGGAATTAGTGCAGAGA  
AGCCAGTCACCATAGAAGGCAACTCCTACTTGTGTGTGGACTGAGCAATCAGAGTCTGTGGCGATAATATTGCTG  
AAAAATGCACTGCATTCAATTTTTCTAAAGTAACAAATTTGGTTTTTTTTTAAACCATTAAAATCTATGTGTGTGCG  
TGTGTATGTATGTGAGCAGTTGGTCTTACCAGAATCATTGTTGAACTACCTGAAACAAGTCTTTAGAATACTAAA  
TATAATGCTGTTGTCTCTTCCTTTTTGACATTTTCTGATTTTTTCCCCAAAACCTCAGTTAATATTTACCCACTA  
TGATTATTGATGTCCTGCCTTGAACAGTTTTAAAGAAAACAATTTTGGAAATAGCTCAAATTTCAATTGATGGCA  
CAAATCAGCATTGTGTTGTTGTTACTGTATTACAATTAGTATTCTAAAGGCAGAAGCAGAAGTAGCTGCTTTTTA  
GCAATAGAATTGTTTTCAGTATTTTGCTGCTGTTAATGCGCATCTTCAGAAAACCTCCCAGTGGCTTCAAGGAAT  
TTGGGGATCTCTCTGGCAACAAATTGTGAAACATGAAATTTCTGCTGACTTTAATATATGAAACCTAATCCTACC  
CCCTTTTTTAACAAAAAGAACTAGTACATTTGTGAAAATTGTGTTGTGTTGTCCATTGTTGCTCTAGTTCTGAC  
CCAGAGGTAGCTCTGGAGTGATTTTAGACCTACTCACTCAGTTGTGTGTAGGTTTTTTTTGTTTTGTTTTGAGAGA  
GAATTTTTCTCTCCTTAATAGAAGCATCTTTTTAAAGAGAAGTGCCTTGGTCCACACACTAAGCAGAAAACCA  
AGTTATCAGGACAGAGATATTTCCAGTTACTCCTAATCAATGAAGAAAAGTGAGTTGGATATTTTTAAAGCAGTT  
AATAATTTTTCTTACCTAATCTTTTGGGAGTTTTGCTTGTGATATAACCTTTTTAGTTAACCTGAAAGATT  
CAAAAATTGTTCTTAAGTGCTTGAGACTGGAACCAAAATTAAATTGTACTTCATAAAATCCTCTTATAGAGTTAC  
TCTTGCCCTAGATTGTAAATTAAGTTTGGCATTATTGTCAGACTGGATGGAGGGTGAAGTAAATAGTATGAACA  
ATTAAGAGGCTCTCCCCCTCTGTCTTTAAGCCATATTCTCCTACATGTATTTTATAAGAAAATGTTAAGTCAAA  
TTTTAGTGGCTCTTTAATTCCTGACCTCTTCATTCTCCTTTTCAGTATAACCTCCCCTATGCTCATGCCCACACA  
GACAAAAAAACAAAACGAAATACACACAGAAAAAAGTCTTTCCAAACTGTTTAAGTATTTAAACATCTGAGCCAA  
AGCAGATAGAAGTTATTGTATAATTGTTAATCACTTTGCAAATAGGGGCTATCAAATTACCTATATTGGCATTGC  
TGGATTATAAACTCTATACTGTAATATAAAGTGTTTGAAGTTTTAATTGGGCTGTTATGATCAGTAATTGATTT  
TGAGAAAGCTCTATGAGCTCTAAGTAAGTGCATGGTTTTTTGTTTAATGTAATATAGGAGACCCCTTCACATTCCC  
AAGGAATATATTCCAAAACATTTTTGTGAATATCTAAGTTTGTGAACTACTAGGGCATGATACAGTAAGGTGTA  
ATTACAGAATTTACGAAATGTAAATGGCCTCTACAGAGTTTTATGGAATACCTGGTACTAACGTAGGCAGCTGCA  
AAACCACACTGAGTTACAGCTGTCAGCCCTCCTCATTCTCTAAATAACTTGCCCTTACATATCAGCCCTCCCCTTC  
TGAAGTTCAAATTAGTGCCTCGGAAATGTAGAATTTATTATTTGTCATTTTTTTTTTTTAGCATAGATTGAGAAC  
AGTTGAACTCTTAAATCCTCAGATGCCAGGGGCTGCTCTAGCATCAGTAAGTATTTAGCAGAACTAACTCCGT  
AATGAATGGAATTCATTCCACACATGGTTTGTTCAGCACACTTAATAAGTAGCCTATTTTTTAAATGTCTTTT  
TAAAAATGTAATATTTGGATGAAGTTTTTCTTTGTTTTGATATATTCAATTGCTACACCAACTATGTTTTTCAGAA  
TTCACTTTTTGAACAACTTGGTTTCAGAATATGTAAAATGACTTTAAGGATCTTGTGTATCAAACCTATCCCCGG  
ATGTGTGAGAATAATGTGTTTATAAAGCATGGATCTCGTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 74**

MRLLPRLLLLLLLVFPATVLFRRGGPRGSLAVAQDLTEDEETVEDSIIEDDEDAEVEEDEPTDLVEDKEEEDVSG  
EPEASPSADTTILFVKGEDFPANNIVKFLVGFTNKGTEDFIVESLDASFRYPQDHQFYIQNFTALPLNTVVPPQR  
QATFEYSFIPAEPMGGRPFGLVINLNYKDLNGNVFQDAVFNQTVTVIEREDGLDGETIFMYMFLAGLGLLVIVGL  
HQLLESRKRRKRP IQKVEMGTSSQNDVDMSWIPQETLNQINKASPRRLPRKRAQKRSVGSDE



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**FIGURE 75**

GCCCTTGCCTTGAGTCAGTGCGCTGCTCTCCAGCCCGCTTGAACGCTCCCCGCAGCCACCGCCACCCATTGGAAT  
GGCCAACAGGGGACCTGCATATGGCCTGAGCCGGGAGGTGCAGCAGAAGATTGAGAAACAATATGATGCAGATCT  
GGAGCAGATCCTGATCCAGTGGATCACCACCCAGTGCCGAAAGGATGTGGGCGCGCCCCAGCCTGGACGCGAGAA  
CTTCCAGAACTGGCTCAAGGATGGCACGGTGCTATGTGAGCTCATTAATGCACTGTACCCCGAGGGGCAGGCCCC  
AGTAAAGAAGATCCAGGCCTCCACCATGGCCTTCAAGCAGATGGAGCAGATCTCTCAGTTCCTGCAAGCAGCTGA  
GCGCTATGGCATTAAACACCACTGACATCTTCCAACTGTGGACCTCTGGGAAGGAAAGAACATGGCCTGTGTGCA  
GCGGACGCTGATGAATCTGGGTGGGCTGGCAGTAGCCCGAGATGATGGGCTCTTCTCTGGGGATCCCAACTGGTT  
CCCTAAGAAATCCAAGGAGAATCCTCGAACTTCTCAGATAACCAGCTGCAAGAGGGCAAGAACGTGATCGGGTT  
ACAGATGGGCACCAACCGCGGGGCGTCTCAGGCAGGCATGACTGGCTACGGGATGCCACGCCAGATCCTCTGATC  
CCACCCAGGCCTTGCCCTGCCCTCCACGAATGGTTAATATATATGATAGATATATATTTTAGCAGTGACATTC  
CCAGAGAGCCCCAGAGCTCTCAAGCTCCTTTCTGTGAGGGTGGGGGGTTCAGCCTGTCTGTACCTCTGAGGTG  
CCTGCTGGCATCCTCTCCCCCATGCTTACTAATACATTCCCTTCCCCATAGCCATCAAACTGGACCAACTGGCC  
TCTTCCCTTTCCCTGGGACCAAAATTTAGGGGCCTCAGTCCCTCACCGCCATGCCCTGGCCTATTCTGTCTCTCC  
TTCTTCCCCCTGGCCTGTTCTGTCTCTGAGCTCTGTGTCTTCCGTTTCATTCCATGGCTGGGAGTCACTGATGCTG  
CCTCTGCCTTCTGATGCTGGACTGGCCTTGCTTCTACAAGTATGCTTCTCCCACAGCTGTGGCTGCAGGAACCTTA  
ATTTATAGGGAGGAGCCTGTGGCAGCTGCTGCCCCAGCCACAGCTGCACTGACTGTGCTCACCACACATCTGGGG  
CAGCCTTCCCTGGCAGGGGGCCCTCGTGGCTTCTCATTTTCCATTCCCTTCACTGTGGCTAAGGGGTGGGGTGAGG  
GGATGGAGAGGGAGGGCTGCCTACCATGGTCTGGGGCTTGAGGAAGATGAGTTTGTGATTTAAATAAAGAATTT  
GTCATTTTTG

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**FIGURE 76**

MANRGPAYGLSREVVQKIEKQYDADLEQILIQWITTQCRKDVGRPQPGRENFQNLKDGTVLCELINALYPEGQA  
PVKKIQASTMAFKQMEQISQFLQAAERYGINTTDIFQTVDLWEGKNMACVQRTLMLNLGGLAVARDDGLFSGDPNW  
FPKKSKENPRNFSNQLQEGKNVIGLQMGTNRGASQAGMTGYGMPRQIL

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**FIGURE 77**

AATCGAAAGTAGACTCTTTTCTGAAGCATTTCCTGGGATCAGCCTGACCACGCTCCATACTGGGAGAGGCTTCTG  
GGTCAAAGGACCAGTCTGCAGAGGGATCCTGTGGCTGGAAGCGAGGAGGCTCCACACGGCCGTTGCAGCTACCGC  
AGCCAGGATCTGGGCATCCAGGCACGGCCATGACCCCTCCGAGGCTCTTCTGGGTGTGGCTGCTGGTTGCAGGAA  
CCCAAGGCGTGAACGATGGTGACATGCGGCTGGCCGATGGGGGCGCCACCAACCAGGGCCGCGTGGAGATCTTCT  
ACAGAGGCCAGTGGGGCACTGTGTGTGACAACCTGTGGGACCTGACTGATGCCAGCGTCGTCTGCCGGGCCCTGG  
GCTTCGAGAACGCCACCCAGGCTCTGGGCAGAGCTGCCTTCGGGCAAGGATCAGGCCCCATCATGCTGGACGAGG  
TCCAGTGCACGGGAACCGAGGCCTCACTGGCCGACTGCAAGTCCCTGGGCTGGCTGAAGAGCAACTGCAGGCACG  
AGAGAGACGCTGGTGTGGTCTGCACCAATGAAACCAGGAGCACCCACACCCTGGACCTCTCCAGGGAGCTCTCGG  
AGGCCCTTGGCCAGATCTTTGACAGCCAGCGGGGCTGCGACCTGTCCATCAGCGTGAATGTGCAGGGCGAGGACG  
CCCTGGGCTTCTGTGGCCACACGGTCATCCTGACTGCCAACCTGGAGGCCAGGCCCTGTGGAAGGAGCCGGGCA  
GCAATGTACCATGAGTGTGGATGCTGAGTGTGTGCCATGGTCAGGGACCTTCTCAGGTACTTCTACTCCCCGAA  
GGATTGACATCACCTGTGCTCAGTCAAGTGCTTCCACAAGCTGGCCTCTGCCTATGGGGCCAGGCAGCTGCAGG  
GCTACTGCGCAAGCCTCTTTGCCATCCTCCTCCCCCAGGACCCCTCGTTCCAGATGCCCTTGGACCTGTATGCCCT  
ATGCAGTGGCCACAGGGGACGCCCTGCTGGAGAAGCTCTGCCTACAGTTCCTGGCCTGGAACCTCGAGGCCTTGA  
CGCAGGCCGAGGCCTGGCCAGTGTCCCCACAGACCTGCTCCAACCTGCTGCTGCCAGGAGCGACCTGGCGGTGC  
CCAGCGAGCTGGCCCTACTGAAGGCCGTGGACACCTGGAGCTGGGGGAGCGTGCCTCCCATGAGGAGGTGGAGG  
GCTTGGTGGAGAAGATCCGCTTCCCCATGATGCTCCCTGAGGAGCTCTTTGAGCTGCAGTTCAACCTGTCCCTGT  
ACTGGAGCCACGAGGCCCTGTTCCAGAAGAAGACTCTGCAGGCCCTGGAATTCACACTGTGCCCTTCCAGTTGC  
TGGCCCGGTACAAAGGCCTGAACCTCACCGAGGATACCTACAAGCCCCGGATTTACACCTCGCCACCTGGAGTG  
CCTTTGTGACAGACAGTTTCTGGAGTGCACGGAAGTCACAACCTGGTCTATCAGTCCAGACGGGGGCCTTTGGTCA  
AATATTCTTCTGATTACTTCCAAGCCCCCTCTGACTACAGATACTACCCCTACCAGTCCTTCCAGACTCCACAAC  
ACCCAGCTTCTCTTCCAGGACAAGAGGGTGTCTGCTCCCTGGTCTACCTCCCCACCATCCAGAGCTGCTGGA  
ACTACGGCTTCTCCTGCTCCTCGGACGAGCTCCCTGTCTGGGCCTACCAAGTCTGGCGGCTCAGATCGCACCA  
TTGCCTACGAAAACAAAGCCCTGATGCTCTGCGAAGGGCTCTTCGTGGCAGACGTCACCGATTTGAGGGCTGGA  
AGGCTGCGATTCCAGTGCCCTGGACACCAACAGCTCGAAGAGCACCTCCTCCTTCCCCTGCCCGGCAGGGCACT  
TCAACGGCTTCCGCACGGTCATCCGCCCTTCTACCTGACCAACTCCTCAGGTGTGGACTTAGACGCGTGGCCAAG  
GGTGGTGAGAACCGGAGAACCCCAGGACGCCCTCACTGCAGGCTCCCCTCCTCGGCTTCTTCTCTGCAATG  
ACCTTCAACAACCGGCCACCAGATGTGCGCCTACTCACCTGAGGCTCAGCTTCAAGAAATTACTGGAAGGCTTCC  
ACTAGGGTCCACCAGGAGTTCTCCACACCTCACCAGTTTCCAGGTGGTAAGCACCAGGAGGCCCTCGAGGTTG  
CTCTGGATCCCCCACAGCCCCTGGTCAGTCTGCCCTTGTCACTGGTCTGAGGTCATTAAATTACATTGAGGTT  
CCTA

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**FIGURE 78**

MTPPRLFWVWLLVAGTQGVNDGDMRLADGGATNQGRVEIFYRGQWGTVCDNLWDLT  
DASVVCRALGFENATQALG  
RAAFGQGS GPIMLDEVQCTGTEASLADCKSLGWLKSNCRHERDAGVVCTNETRSTHT  
DLSRELSALGQIFDSQ  
RGCDLSISVNVQGEDALGFCGHTVILTANLEAQALWKEPGSNVTMSVDAECVPMVRD  
LLRYFYSSRRIDITLSSVK  
CFHKLASAYGARQLQGYCASLFAILLPQDPSFQMPLDLYAYAVATGDALLEKLCLQF  
LAWNFEALTQAEAWPSVP  
TDLLQLLLPRSDLA VPS ELALLKAVDTWSWGERASHEEVEGLVEKIRFPMM LPEEL  
FELQFNLSLYWSHEALFQK  
KTLQALEFH TVPFQLLARYKGLNLTEDTYKPRIYTSPTWSAFVTDSSWSARKSQLVY  
QSRRGPLVKYSSDYFQAP  
SDYRYYPYQSFQTPQHPSFLFQDKRVSWSLVYLPTIQSCWNYGFSCSSDEL PVLGL  
TKSGGSDRTIAYENKALML  
CEGLFVADVTD FEGWKAAIP SALDTNSSKSTSSFP CPAGHFNGFRTVIRPFYLTNSSGVD

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**FIGURE 79**

GGCACGAGGCCCCGGTTCCGGCGCGGTTGAGGCCTTCGGTGGTGAACGAGTCTCCAGCACCAATGCTGGTTTGTC  
TGGCCCACCAGCCCGGCGCGGCCCTTTTCCGTTAGCGTTGCTGCTTTTGTTCCCTGCTCGGCCCCAGATTGGTCCT  
TGCCATCTCCTTCCATCTGCCCATTAACCTCTCGCAAGTGCCTCCGTGAGGAGATTACAAGGACCTGCTAGTGAC  
TGGCGCGTACGAGATCTCCGACCAGTCTGGGGGCGCTGGCGGCCTGCGCAGCCACCTCAAGATCACAGATTCTGC  
TGGCCATATTCTCTACTCCAAAGAGGATGCAACCAAGGGGAAATTTGCCTTTACCACTGAAGATTATGACATGTT  
TGAAGTGTGTTTTGAGAGCAAGGGAACAGGGCGGATACCTGACCAACTCGTGATCCTAGACATGAAGCATGGAGT  
GGAGGCGAAAAATTACGAAGAGATTGCAAAAGTTGAGAAGCTCAAACCATTAGAGGTAGAGCTGCGACGCCTAGA  
AGACCTTTCAGAACTCTATTGTTAATGATTTTGCCTACATGAAGAAGAGAGAAGAGGAGATGCGTGATACCAACGA  
GTCAACAAACACTCGGGTCCCTATACTTCAGCATCTTTTCAATGTTCTGTCTCATTGGACTAGCTACCTGGCAGGT  
CTTCTACCTGCGACGCTTCTTCAAGGCCAAGAAATTGATTGAGTAAATGAATGAGGCATATTCTCCTCCACCTTG  
TACCTCAGCCAGCAGAACATCGCTGGGACGTGCCTGGCCTAAGGCATCCTACCAACAGCACCATCAAGGCACGTT  
GGAGCTTTCTTGCCAGAACTGATCTCTTTTGGTGTGGGAGGACATGGGGTACCACCTACACCCAACAAGTCAATG  
AGGGACTTCTTTTTAATTTGGTAGGATTTTGAAGTGGTTTTGCAACAATAGGTCTATTATTAGAGTCACCTATGAC  
AAAAAATAGGGGTACCTAGATAATGCCAAAGTCAGCATTTTGTCCTGGGTTCCTTGTGTGATCTGTTTGGACTA  
TGTTTTCTTTTCTTCTCCCACTTGCTCAGCAGCTTGGGCTTCCATTCTAGTTCTTTTACCAAGATTTTTGTGTGA  
CCATGTTGACTTCATTTGGATTGCCCTCTTTCAATTTCTTTGTGAAAACACCCCTTAACCTTTCTTTACCCTTAG  
CTGAAATGTTTACATAGCTTCTGGTGATATCTTTTCATGATTTTATATCTCTTAAATGGTGATGGATGTGACAC  
CTCATAAAAGTGAGCTTTGAACTGTAGATAACTCTTAAAGAAAATGTCATTTTAGACAATTAAATATTTGTGCT  
CAACTGCTTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 80**

MSGLSGPPARRGPFPLALLLLFLLGPRLVLAI SFHLP INSRKCLREEIHKDLLVTGAYEISDQSGGAGGLRSHLK  
ITDSAGHILYSKEDATKGKFAFTTEDYDMFEVCFESKGTGRIPDQLVILDMKHGVEAKNYEEIAKVEKLKPLEVE  
LRRLEDLSEIVNDFAYMKKREEEMRDTNESTNTRVLYFSIFSMFCLIGLATWQVFYLRFFKAKKLIE

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**FIGURE 81**

GTCCGTACTGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCGCGTTGCCGCCCCCTCGGCCCGCC**ATG**CTGC  
TATCCGTGCCGCTGCTGCTCGGCCTCCTCGGCCTGGCCGTCGCCGAGCCCCGCCGTCTACTTCAAGGAGCAGTTTC  
TGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCAGTT  
CCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGCAGACAAGCCAGGATGCACGCTTTTATGCTCTGT  
CGGCCAGTTTCGAGCCTTTCAGCAACAAAGGCCAGACGCTGGTGGTGCAGTTTACGGTGAAACATGAGCAGAACA  
TCGACTGTGGGGGCGGCTATGTGAAGCTGTTTCCTAATAGTTTGGACCAGACAGACATGCACGGAGACTCAGAAT  
ACAACATCATGTTTGGTCCCGACATCTGTGGCCCTGGCACCAAGAAGGTTTCATGTCATCTTCAACTACAAGGGCA  
AGAACGTGCTGATCAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGCGGC  
CAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGGAAGACGATTGGGACTTCC  
TGCCACCCAAGAAGATAAAGGATCCTGATGCTTCAAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATGATC  
CCACAGACTCCAAGCCTGAGGACTGGGACAAGCCCCGAGCATATCCCTGACCCTGATGCTAAGAAGCCCCGAGGACT  
GGGATGAAGAGATGGACGGAGAGTGGGAACCCCCAGTGATTTCAGAAACCTGAGTACAAGGGTGAGTGGAAGCCCC  
GGCAGATCGACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAAATTGACAACCCCGAGTATTCTCCCGATC  
CCAGTATCTATGCCTATGATAACTTTGGCGTGCTGGGCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCTTTG  
ACAACTTCCTCATCACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAAGGCAG  
CAGAGAAACAAATGAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACAAGAAACGCAAAG  
AGGAGGAGGAGGCAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGGAGG  
AAGATGAGGAGGAAGATGTCCCCGGCCAGGCCAAGGACGAGCTG**TAG**AGAGGCCTGCCTCCAGGGCTGGACTGAG  
GCCTGAGCGCTCCTGCCGCAGAGCTTGCCGCGCCAAATAATGTCTCTGTGAGACTCGAGAACTTTTATTTTTTTC  
CAGGCTGGTTTCGGATTGTTGGGTGGATTTTGGTTTTGTTCCTCCTCCACTCTCCCCACCCCTCCCCGCCCTT  
TTTTTTTTTTTTTTAAACTGGTATTTTATCCTTTGATTCTCCTTCAGCCCTCACCCCTGGTTCTCATCTTTCTT  
GATCAACATCTTTTCTTGCTCTGTGCCCCTTCTCTCATCTCTTAGCTCCCCTCCAACCTGGGGGGCAGTGGTGT  
GGAGAAGCCACAGGCCTGAGATTTTCATCTGCTCTCCTTCCTGGAGCCCAGAGGAGGGCAGCAGAAGGGGGTGGTG  
TCTCCAACCCCCCAGCACTGAGGAAGAACGGGGCTCTTCTCATTTTACCCCTCCCTTTCTCCCTGCCCCCAGGA  
CTGGGCCACTTCTGGGTGGGGCAGTGGGTCCAGATTGGCTCACACTGAGAATGTAAGAACTACAAACAAATTT  
CTATTAAATTAAATTTTGTGTCTC

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**FIGURE 82**

MLLSVPLLLGLLGLAVAEPVYFKEQFLDGDGWTSRWIESKHKSDFGKFVLSGKFYGDEEKDKGLQTSQDARFY  
ALSASFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPNSLDQTMHGDSEYNIMFGPDICGPGTKKVHVIFNY  
KGKNVLINKDIRCKDDEFTHLYTLIVRPDNTYEVKIDNSQVESGSLEDDWDFLPPKKIKDPDASKPEDWDERAKI  
DDPTDSKPEDWDKPEHIPDPDAKKPEDWDEEMDGEWEPPVIQNPEYKGEWKPRQIDNPDYKGTWIHPEIDNPEYS  
PDPSIYAYDNFGVLGLDLWQVKSgtIFDNFLITNDEAYAEFGNETWGVTKAAEKQMKDKQDEEQRLKEEEDKK  
RKEEEEAEDKEDDEDKDEDEDEEDKEEDEEEDVPGQAKDEL



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**FIGURE 83**

GGGCGGACAGGCACAGAGGGAGGGAGCGAGCGAGCAGTGAGTAAGCCAGCAAGGGCGGTCCGGTCCCGAGGTCAG  
CCGAGATTCTCAGGTCCCTCCGGCCCCCTCCCTGGAGTCCACAGCGCCTCCGGTGTCCAGAGGATCGGACACGG  
CCCGGCCCGGCCATGGCCTCGTTGCTGAAGGTGGATCAGGAAGTGAAGCTCAAGGTTGATTCTTTCAGGGAGCGG  
ATCACAAGTAAGGCAGAAGACTTGGTGGCAAATTTTTTCCCAAAGAAGTTATTAGAAGTTGATAGTTTTCTGAAG  
GAACCAATCTTAAACATCCATGACCTAACTCAGATCCACTCTGACATGAATCTCCAGTCCCTGACCCATTCTT  
CTCACC AATAGCCATGATGGACTGGATGGTCCCCTTATAAGAAGCGAAGGTTGGATGAGTGTGAAGAAGCCTTC  
CAAGGAACCAAGGTGTTTGTGATGCCCAATGGGATGCTGAAAAGCAACCAGCAGCTGGTGGACATTATTGAGAAA  
GTGAAACCTGAGATCCGGCTGTTGATTGAGAAATGTAACACGCCTTCAGGCAAAGGTCCTCATATATGTTTTGAC  
CTCCAGGTCAAAATGTGGGTACAGCTCCTGATTCCCAGGATAGAAGATGGAAACAACCTTTGGGGTGTCCATTTCAG  
GAGGAAACAGTTGCAGAGCTAAGAACTGTTGAGAGTGAAGCTGCATCTTATCTGGACCAGATTCTAGATATTAT  
ATTACAAGAGCCAAATTGGTTTCTAAAATAGCTAAATATCCCCATGTGGAGGACTATCGCCGCACCGTGACAGAG  
ATTGATGAGAAAAGATATATCAGCCTTCGGCTCATCATATCAGAGCTGAGGAATCAATATGTCACTCTACATGAC  
ATGATCCTGAAAAATATCGAGAAGATCAAACGGCCCCGGAGCAGCAATGCAGAGACTCTGTACTGAGGGCCAGGGC  
CAGGGCCAGGGGACTCTGTGAGTCTGGCTCAAGACCGACATTGCCTTGGTTTGTACATGACTATCGTGATGGGG  
AAACTGGCTGGAAATAGTAATCACACCTCTCTGTTTTTGTAGTTAGAGTCTAATGAACTCTCATCTAGTTCTGTGA  
TGTGTTTACCTCTTTTTTTCAGGCCTCAGGAACCTCTTCTATTTCCCTAATACCCACACCCAACCTGTCTGTA  
ATTTCTGGAGAAGTCCAGGTTTGTGTGTGCAGGATGTTGGCACAAAATACCTGTGTTTTTCACTCTCCCCCTCTC  
TCCCTCCTGTGTCTGGCGCTTTATGTTTTCTCCGTTTGATAATTAGTTGGTTAAAAGCTGAGGGAACCGGAAGG  
AAAGTGCTAGGTGTTTTTTAGGAACTAGGGTGGAGGGGGGACGAACCTCTCTCCTCACATGAGGTTACTGTTTC  
TTTCTCTGTGGGGCATTGGATCCTCCACAGTTGCCCTGGTGATGACTTAGGACTTCCCATCTGTGACATCCCA  
CTTTGAATCTTGATCGTGACAAGAAATACCTTAGGCCTTCAGTCAATTCCGAAGCTCCTTCAGTTGTTTTTATAA  
TGGGCGTTTCACATGCACATATGTGTATGCATGTATACGCCATACAGACATGCACACACAGACTCCTACTCCAT  
TAGCTAACATAACCTCCCTCTCCACAACCCGTGTACATACTTTTCAGGAGGTGACAGTTGTCTTAGTTGTCTATC  
TACCCAGACAAACGTCCTGGGCCCCGTCTCCCTCCTGATACTGTAGCCTCTTGGTACCCAGGGTGAGTTGGTGGA  
GAACAGAGAGATGAGAAGCAGAGGGCTTGGGGAAAGCCTGTTCTCTCTGACTCAGCCCTTTTTGGCATTATTGC  
AAGAGCTTGACTCCTGGTTGCCTTTTCCCAGCCAGTTTTTCAGTTGGGGTGAAGGTTTCTGCAAGTGTGAGGTCCA  
GATGCTGCTGCTCATGTTGGGCTTTCTTTTGGGAACTATTTCTCTTTATTTATAGTGTGGGCTTCCGGGGAAA  
GCAATCATTGGTGTGTATGTGTATGTGCCATGCACACACGTGCATATATACACATTTGTGTATGTGGAAATGTGC  
TGGGCAAGTCAAAACTATAGAAGAGTTGCCTCCTGTCTCTCGAATCTTCCAGAGATATCACTTAATTGTTAACAG  
CTTTTGTGTTAATCCCCCTTCATCCCCCTAGCACTTTTATTCTACCACGGCTGGAGAGTTGAXAXCTACAGTCAGCC  
TGCCAGTGACTCTTAGTGTCTGTTTCTGACTTATTTTTCTGTCTCTGTCTTCCAACCCCCAATAATATTTCCCA  
CCGGGGATGCATCATTTTTTACTCCCAATATTCTGTAGAGAGGGAGTCAGGATGCTGTCTTCCCACGAATAGTACT  
CAGTAACAAACCAATTGCATTTTAGTTGGGCAGTGCTCCACCCACCCTGCAGATCCCTCCAGCTAAAACCCTTC  
CCCCTTCCCTCCATGTGTTTCTCAGTTTCCCGTTTCGTTTGTGGACTGTTCCACTGCCCCCTCCTCACCCTAT  
CACCCATGGATCGTAATGTAAAATTCTTTTACCATGTCAAGAAATTATTAATAATACAGGTACTTTGACCTCTTT  
CTAAAGCCGCAGACCCTGGTGCAATGCTCTGGTGGCTAGGGATGTACTCATGCTCATATGTGTGCACGCTTGGAC  
ACCCACCTCCATGGACACCTAGCCACCCTGTTGTGTGXCTTATGCCAGTTGAGCTGAATCTTTTCCCCAGTATA  
GTGGAAAGACTGAGGCTTCTGCCTACTGAGCAAGGTTGGGTGCTTCATTGTGTTCAGTCTGAATTATGGGAAAG  
TTAGCTCTTCCCAGACCTAAGCTGCCTTCTCTCCCTACTTTTCAG

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**FIGURE 84**

MASLLKVDQEVKLKVDSFRERITSKAEDLVANFFPKKLELDSFLKEPILNIHDLTQIHSDMNLPVPDPILLTNS  
HDGLDGPTYKKRRLDECEEAFOGTKVFVMPNGMLKSNQQLVDIIKVKPEIRLLIEKCNTPSGKGPHICFDLQVK  
MWVQLLIPRIEDGNNFGVSIQEETVAELRTVESEAASYLDQISRYIITRAKLVSKIAPHVEDYRRTVTEIDEK  
EYISLRLLISELRNQYVTLHDMILKNIEKIKRPRSSNAETLY

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**FIGURE 85**

GCTTAGTGTAACCAGCGGCGTATATTTTTTAGGCGCCTTTTCGAAAACCTAGTAGTTAATATTCATTGTGTTTAAA  
TCTTATTTTATTTTAAAGCTCAAACCTGCTTAAGAATACCTTAATTCCTTAAAGTGAAATAATTTTTTGCAAAGGG  
GTTTCCTCGATTTGGAGCTTTTTTTTTCTTCCACCGTCATTTCTAACTCTTAAAACCAACTCAGTTCCATCATGG  
TGATGTTCAAGAAGATCAAGTCTTTTGAGGTGGTCTTTAACGACCCTGAAAAGGTGTACGGCAGTGGCGAGAGGG  
TGGCTGGCCGGGTGATAGTGAGGTGTGTGAAGTTACTCGTGTCAAAGCCGTTAGGATCCTGGCTTGCGGAGTGG  
CTAAAGTGCTTTGGATGCAGGGATCCCAGCAGTGCAAACAGACTTCGGAGTACCTGCGCTATGAAGACACGCTTC  
TTCTGGAAGACCAGCCAACAGGTGAGAATGAGATGGTGATCATGAGACCTGGAAACAAATATGAGTACAAGTTCG  
GCTTTGAGCTTCTCAGGGGCTCTGGGAACATCCTTCAAAGGAAAATATGGGTGTGTAGACTACTGGGTGAAGG  
CTTTTCTTGACCGCCCGAGCCAGCCAACCTCAAGAGACAAAAGAAAACCTTTGAAGTAGTGGATCTGGTGGATGTCA  
ATACCCCTGATTTAATGGCACCTGTGTCTGTCTAAAAAAGAAAAGAAAGTTTCTGTCATGTTTCTTCTGATGGGC  
GGGTGTCTGTCTCTGCTCGAATTGACAGAAAAGGATTCTGTGAAGGTGATGAGATTTCCATCCATGCTGACTTTG  
AGAATACATGTTCCCGAATTGTGGTCCCCAAAGCTGCCATTGTGGCCCGCCACACTTACCTTGCCAATGGCCAGA  
CCAAGGTGCTGACTCAGAAGTTGTCTCAGTCAGAGGCAATCATATTATCTCAGGGACATGCGCATCATGGCGTG  
GCAAGAGCCTTCGGGTTTCCAGATCAGGCCTTCTATCCTGGGCTGCAACATCCTTCGAGTTGAATATTCCTTAC  
TGATCTATGTTAGCGTTTCTGGATCCAAGAAGGTCACTCTGACCTGCCCCCTGGTAATTGGCAGCAGATCAGGTC  
TAAGCAGCAGAACATCCAGCATGGCCAGCCGAACCAGCTCTGAGATGAGTTGGGTAGATCTGAACATCCCTGATA  
CCCCAGAAGCTCCTCCCTGCTATATGGATGTCAATTCCTGAAGATCACCGATTGGAGAGCCCAACAACTCCTCTGC  
TAGATGACATGGATGGCTCTCAAGACAGCCCTATCTTTATGTATGCCCCTGAGTTCAAGTTTCATGCCACCACCGA  
CTTATACTGAGGTGGATCCCTGCATCCTCAACAACAATGTGCAGTGCAGCATGTGGAAGAAAAGAAGCAGCTTTAC  
CTACTTGTTCCTTTTGTCTCTCTTCTGGACACTCACTTTTTTCAGAGACTCAACAGTCTCGTCAATGGAGTGTG  
GGTCCACCTTAGCCTCTGACTTCCTAATGTAGGAGGTGGTCAGCAGGCAATCTCCTGGGCCCTTAAAGGATGCGGA  
CTCATCCTCAGCCAGCGCCCATGTTGTGATACAGGGGTGTTTGTGGATGGGTTTAAAAATAACTAGAAAAACTC  
AGGCCCATCCATTTTCTCAGATCTCCTTGAAAATTGAGGCCTTTTCGATAGTTTCGGGTGAGGTAAAAATGGCCT  
CCTGGCGTAAGCTTTTCAAGTTTTTTGGAGGCTTTTTGTAAATTGTGATAGGAACTTTGGACCTTGAACCTTACG  
TATCATGTGGAGAAGAGCCAATTTAACAACTAGGAAGATGAAAAGGGAAATTGTGGCCAAAACCTTTGGGAAAAG  
GAGGTCTTAAATCAGTGTTTCCCTTTGTGCACTTGTAGAAAAAAGAAAACCTTCTAGAGCTGATTTGAT  
GGACAATGGAGAGAGCTTTCCCTGTGATTATAAAAAAGGAAGCTAGCTGCTCTACGGTCATCTTTGCTTAGAGTA  
TACTTTAACCTGGCTTTTAAAGCAGTAGTAAGTCCCCACCAAAGGTCTTAAAGCCATTTTGGAGCCTATTGC  
ACTGTGTTCTCCTACTGCAAATATTTTCATATGGGAGGATGGTTTTCTCTTCATGTAAGTCCTTGGAAATTGATTC  
TAAGGTGATGTTCTTAGCACTTTAATTCCTGTCAAATTTTTTGTCTCCCCCTCTGCCATCTTAAATGTAAGCTG  
AAACTGGTCTACTGTGTCTCTAGGGTTAAGCCAAAAGACAAAAAAATTTTACTACTTTTGAGATTGCCCAATG  
TACAGAATTATATAATTCTAACGCTTAAATCATGTGAAAGGGTTGCTGCTGTCAGCCTTGCCCACTGTGACTTCA  
AACCAAGGAGGAACCTTGATCAAGATGCCCAACCCTGTGATCAGAACCTCCAAATACTGCCATGAGAACTAG  
AGGGCAGGTGTTTCAAAAAGCCCTTTGAACCCCTTCTGCCCCTGTGTTAGGAGATAGGGATATTGGCCCTCAC  
TGCAGCTGCCAGCACTTGGTCAGTCACTCTCAGCCATAGCACTTTGTTCACTGTCTGTGTCAGAGCACTGAGCT  
CCACCCTTTTCTGAGAGTTATTACAGCCAGAAAGTGTGGGCTGAAGATGGTTGGTTTCATGTGGGGGTATTATGT  
ACCC

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**FIGURE 86**

MVMFKKIKSFEVVFNDPEKVYGSGERVAGRVIVEVCEVTRVKAVRILACGVAKVLWMQGSQQCKQTSEYLR EDT  
LLEDQPTGENEMVIMRPGNKYEYKFGFELPQGPLGTSFKGKYGCVDYWVKAFLDRPSQPTQETKKNFEVVDLVD  
VNTPDLMAPVS AKKEKKVSCMFIPDGRVSVSARIDRKGFCEGDEISIHADFENTCSRIVVPKAAIVARHTYLANG  
QTKVLTQKLSSVRGNHIIISGTCASWRGKSLRVQKIRPSILGCNLRVEYSLLIYVSVPGSKKVILDPLVIGSRS  
GLSSRTSSMASRTSSEMSWVDLNIPDTPEAPPCYMDVIPEDHRLESPTTPLLDDMDGSQDSP IFMYAPEFKFMPP  
PTYTEVDPCILNNNVQ

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**FIGURE 87**

GGCACGAGGGGCGGCGGCAGCTGTGGAAGCTCAGGCGCTGCGCGTGAGAGGTCCCAGATACGTCTGCGGTTCCGG  
CTCCGCCACCCTCAGCTTCTCTTCCCCAGGTCTGGGAGCCGAGTGCGGAAGGAGGGAACGGCCCTAGCTTTGGGA  
AGCCAGAGGACACCCCTGGCTCCTGCCGACACCGCCCTCCTTCCCTTCCCAGCCGCGGGCCTCGCTCGGTGCTAG  
GCTACTCTGCCGGGAGGCGGCGGCGGCTGCCAGTCTGTGGAGAGTCTGCTGCCCTCCAGCCGGGCTCCTCCACC  
GGGCCTTGCAAGGGCCGAGAGAGCTCGGTGCCCCGCCCTTCCGCTCGCCTTTTTCGTCAGCTGGCTGGAGCAGCAT  
CGGTCCGGGAGGTCTCTAGGCTGAGGCGGCGGCCGCTCCTCTAGTTCCACAATGCTCCACGGGCGGAGACTTCCGG  
AATCCGCTGAGGAAATTCAGCTGGTGTCTCTGGGGGAGCAAAGCGTTGGAAGACATCTTTGATCACCAGATTCTC  
ATGTATGACAGTTTTGACAACACCTATCAGGCAACAATTGGCATTGACTTTTTATCAAAAATATGTACTTGGAG  
GATCGAACATCAGGCTTCAGCTGTGGGATACTGCGGGTCAGGAACGTTTCCGTAGCCTCATTCCCAGTTACATC  
CGTGATTCTGCTGCAGCTGTAGTAGTTTACGATATCACAAATGTTAACTCATTCCAGCAAACTACAAAGTGGATT  
GATGATGTCAGAACAGAAAGAGGAAGTGATGTTATCATCATGCTAGTAGGAAATAAAACAGATCTTGCTGACAAG  
AGGCAAGTGTCAATTGAGGAGGGAGAGAGGAAAGCCAAAGAGCTGAATGTTATGTTTATTGAAACTAGTGCAAAA  
GCTGGATACAATGTAAAGCAGCTCTTTTCGACGTGTAGCAGCAGCTTTGCCGGGAATGGAAGCACACAGGACAGA  
AGCAGAGAAGATATGATTGACATAAACTGGAAGAGCCTCAGGAGCAACCAGTCAGTGAAGGAGGCTGTTCTCTGC  
TAACTCTCCCATGTCATCTTCAACCTTCTTCAGAAGCTCACTGCTTTGGCCCCCTTACTCTTTTATTGACTGCAGT  
GTGAATATTGGCTTGAACCTTTTCCCTTCAGTAATAACGTATTGCAATTCATCATTGCTGCCTGTCTCGTGGAGA  
TGATCTATTAGCTTCACAAGCACAAACAAAGTCAGTGTCTTCATTATTTATATTTTACAAAAGCCAAAATATTT  
CAGCATATTCAGTGATAACTTTTAAAATTAGATACATTTTCTTAACATTTTTTTCTTTTTTAATGTTATGATAA  
TGTAATCAAAATGATGGAAATCTCAACAGTATGAGTATGGCTTGGTTAACGAGCGCTATGTTTACAGCCTACTT  
TATCTCTCCTTGCTTTTTCTCACCTCTCACTTACCCCCATTCCCTATTACCCTATTCTTACCTAGCCTCCCCCGAC  
TTCTCTAAAACAAACAAGAGATGGCAAAGCAGCAGTTCTACCAAGCCCATGGAATTATCCTTTAATTTTACAGA  
TACCACTTGCTGTAGGCTACGGACCAAGATGTCCAAAATTATTCTTGAGCACTGATATAAATTACGGTCTTCTTT  
GAGGTCAAAATTCAGCCATCATGGTAGGCAGTGTCTGAATGAGAAAAGGCTCCTGGTGCATCTTCAAAATGAGTC  
CTAAAGACATACTGAGTACTTAGAAGTAGAAGAACATAAGATGTATTTCTGACTAAAACAAATGGCTCTTTTAC  
ATGTGCTTTATTAGACTCTGGGAGAGAAAATTAACCAAGTGCTTCAGAACAGGTTTTTAGTATTTAATTTCTTAC  
GGTAAGAAAATGAAGTTCTAATGAAGTGTCTTCCCAAGGTTTTAAAATTGTCAAGAGTTATTCTGTTTGTAA  
AAAATAAGAAACCTCTTTAAGCAATAGATTTTGCTTGGGTTTTCTTTTTTAAAAACATAATACTGTGCAGGCAAG  
GCACTGTAAAAGTTTTAATTCCTTCCAGAAGAACCAGTGGAAGAAATTTAAATTTGGCGCTACGATCAAACTACT  
GAATTAGTAGAAATAATGATGTCTAAAGCTTACCAACAAAAGAACCCTCAGCAGAATAACAAAACCTTTGCTCAG  
GACATTTGAGGTCAAATTGAAGACGGAACCGGAAACCGTTTTCTTGTAAGCCCCCTAGAGGCAGATCAGGTAAAG  
CATACATAGTAGAGGGAAAGGAGAGAATGGAATAAACTCAATATTATGCAGATTTATGCCTTATTTTTTTAGCA  
TTTTTTAAGGTTGGGTCTTTTCAAGGCTGGTTTTGGTTTTGTATTAGATCTGTATAGTTTAAATTAAGTGGTATTAG  
TTTTATATTTAAGCTACAATTAATCTTTTTTCTTTGGTGATATTTATTTCTTTGCCTTTTTTTTTTTTAACT  
TTCAATCTTCAGATGTTTCGTTGAATCTATTTAGAGCTTCACCATGGCAATATGTATTTCCCTTAAACACTGCA  
AACAAATATACTAGGAGTGTCCTTTTTAATCTTTACTAGTTATTGTGAGATTGCTGTGTAAGCTAATAAACACA  
TTTGTAATAACATTGTTTGCAGGACGAAAACCTTCTGAGTTACAGCTCAGGAAAAGCCTGCTGAATTTATGTTGTA  
AGCATTACTTAACACAGTATAAAGATGAAAAGACAACAAAATATCTTCATACTTCCTCATCCCCTCATTGGAAC  
AAAAACCTTAACTGGGAGAACCTTAGTCCCCTCTCTTTCTCTTCTCCTCCTCCACTTCCACTTATTGTCACCTT  
GTAATATTTCAGAGAGCACTTGGATTATGGATCTGAATAGAGAAATGCTTACAGATAATCATTAGCCACATACCA  
GTAACCTTATACTTAAAGATGGGATGGAGTTGTAAAGTGCTTTTATAATACAATATAATTGTTAAAGGCAAGGGTT  
GACTCTTTGTTTTATTTTGACATGGCATGTCCTGAAATAAATATTGATTCAATATGGCAAAAAAAAAAAAAAAAA  
AAAA

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**FIGURE 88**

MSTGGDFGNPLRKFKLVFLGEQSVGKTSLITRFMYDSFDNTYQATIGIDFLSKTMYLEDRTIRLQLWDTAGQERF  
RSLIPSYIRDSAAA VVVDITNVNSFQQTTKWIDDVRTERGSDVIIMLVGNKTDLADKRQVSIEEGERKAKELNV  
MFIETSAKAGYNVKQLFRRVAAAALPGMESTQDRSREDMIDIKLEKPQEQPVSEGGCSC

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**FIGURE 89**

ACTTCTTCGCACCAGGGAAGCCCCACCCACCAGAACGCCAAGATGTCCAGCAAGCGGGCCAAAGCCAAGGCCACC  
AAGAAGCGGCCACAGCGGGCCACATCCAATGTCTTCGCAATGTTTGACCAGTCCCAGATCCAGGAGTTTAAGGAG  
GCTTTCAACATGATTGACCAGAACCGTGATGGCTTCATTGACAAGGAGGACCTGCACGACATGCTGGCCTCGCTG  
GGGAAGAACCCACAGACGAATACCTGGAGGGCATGATGAGCGAGGCCCCGGGGCCATACAACCTTACCATGTTC  
CTCACCATGTTTGGGGAGAAGCTGAACGGCACGGACCCCGAGGATGTGATTTCGCAACGCCTTTGCCTGCTTCGAC  
GAGGAATCCTCAGGTTTCATCCATGAGGACCACCTCCGGAAGCTGCTCACCACCATGGGTGACCGCTTCACAGAT  
GAGGAAGTGGACGAGATGTACCGGGAGGCACCCGTTGATAAGAAAGGCAACTTCAACTACGTGGAGTTCAACCGC  
ATCCTCAAACATGGCGCCAAGGATAAACACGACTAGGCCATCCCCAGCCCCCTGACACCCAGCCCCCGCCAGTCA  
CCCCCTCCCCGCACACACCCGTCCATACCAGCTCCCTGCCCATGACCCTCGCTCAGGGATCCCCCTTTGAGGGTTA  
GGGTCCCAAGTTCCCAAGTGAAGAAACAGGCCAGGAGAGTGCGTGCCGAGCTGAGGCAGATGTTCCACAGTGACC  
CCAGAGCCCTGGGCTATAGTCTCTGACCCCTCAAGGAAAGACCACCTTCTGGGGACATGGGCTGGAGGGCAGGA  
CCTAGAGGCACCAAGGGAACCGCATTCCGGGGCTGTTCCCCGAGGAGGAAGGGAAGCCTCTGTGTGCCCCCAGG  
AGGAAGAGGCCCTGAGTCCTGGGATCAGACACCCCTTCACGTGTATCCCACACAAATGCAAGCTCACCAAGGTCC  
CCTCTCAGTCCCCTTCCCTACACCCTGACGCCAGATGCCGCACACCCAACGCCACCAGCCATGGGAGTGTGCTCA  
GGAGTCGCGGGGCAGACGTGACATCTGTCCAGAGGGGGCAGAATCTCCAATAGAGGACTGAGACAACATG

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**FIGURE 90**

MSSKRAKAKATKKRPQRATSNVFAMFDQSQIQEFKEAFNMIDQNRDGFIDKEDLHDMLASLGKNPTDEYLEGMMS  
EAPGPYNFTMFLTMFGEKLNQDTPEDVIRNAFACFDEESSGFIHEDHLRKLLTTMGDRFTDEEVDEMYREAPVDK  
KGNFNIVEFTRILKHGAKDKHD



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**FIGURE 91**

GGCACGAGGGCGGCGGCGGCGGTAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCTCGGAGGCAGCGGTTGGGCTCGCG  
GCGAGCGGACGGGGTCGAGTCAGTGCCTTCGCGCGAGTTGGAATCGAAGCCTCTTAAAATGGCAGATGACTTGGA  
CTTCGAGACAGGAGATGCAGGGGCGCTCAGCCACCTTCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGT  
GGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGATGTCTACTTCGAAGACTGGCAAGCACGGCCACGCCAAGGT  
CCATCTGGTTGGTATTGACATCTTTACTGGGAAGAAATATGAAGATATCTGCCCGTCAACTCATAATATGGATGT  
CCCCAACATCAAAGGAATGACTTCCAGCTGATTGGCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGG  
GGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAGACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGA  
AGAGATCCTGATCACGGTGCTGTCTGCCATGACAGAGGAGGCAGCTGTTGCAATCAAGGCCATGGCAAAAATAACT  
GGCTCCCAGGATGGCGGTGGTGGCAGCAGTGATCCTCTGAACCTGCAGAGGCCCTCCCGAGCCTGGCCTGGC  
TCTGGCCCGGTCTAAGCTGGACTCCTCCTACACAATTTATTTGACGTTTTATTTTGGTTTTTCCCCACCCCTCA  
ATCTGTCGGGGAGCCCTGCCCTTACCTAGCTCCCTTGGCCAGGAGCGAGCGAAGCTGTGGCCTTGGTGAAGCT  
GCCCTCCTCTTCTCCCTCACACTACAGCCCTGGTGGGGGAGAAGGGGGTGGGTGCTGCTTGTGGTTTAGTCTTT  
TTTTTTTTTTTTTTTTTTTTTTTTTAAATTCATCTGGAATCAGAAAGCGGTGGATTCTGGCAAATGGTCCTTGTGC  
CCTCCCCACTCATCCCTGGTCTGGTCCCCTGTTGCCCATAGCCCTTTACCCTGAGCACCACCCCAACAGACTGGG  
GACCAGCCCCCTCGCCTGCCTGTGTCTCTCCCCAAACCCCTTTAGATGGGGAGGGAAGAGGAGGAGGGGAGGG  
GACCTGCCCCCTCCTCAGGCATCTGGGAGGGCCCTGCCCCATGGGCTTTACCCTTCCCTGCGGGCTCTCTCCCC  
GACACATTTGTTAAAATCAAACCTGAATAAACTACAAGTTTAATATGAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 92**

MADDLDFETGDAGASATFFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS  
THNMDVPNIKRNDFQLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEAATAIK  
AMAK

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**FIGURE 93A**

AGTGGCGTCGGAAGTCAAAGCACCTGTGAGCTTGCGGAAGTCAGTTCAGACTCCAGCCCGCTCCAGCCCGGCCCC  
GACCCGACCGCACCCGGCGCCTGCCCTCGCTCGGCGTCCCCGGCCAGCCATGGGCCCCCTGGAGCCGCAGCCTCTC  
GGCGCTGCTGCTGCTGCTGCAGGTCTCCTCTTGGCTCTGCCAGGAGCCGGAGCCCTGCCACCTGGCTTTGACGC  
CGAGAGCTACACGTTACGGTGCCCCGGCGCCACCTGGAGAGAGGCCGCGTCTGGGCAGAGTGAATTTTGAAGA  
TTGCACCGGTGACAAAAGGACAGCCTATTTTTCCCTCGACACCCGATTCAAAGTGGGCACAGATGGTGTGATTAC  
AGTCAAAAGGCCTCTACGGTTTCATAACCCACAGATCCATTTCTTGGTCTACGCCTGGGACTCCACCTACAGAAA  
GTTTTCCACCAAAGTCACGCTGAATACAGTGGGGCACCACCACCGCCCCCGCCCCATCAGGCCTCCGTTTCTGG  
AATCCAAGCAGAATTGCTCACATTTCCCAACTCCTCTCTCTGGCCTCAGAAGACAGAAGAGAGACTGGGTTATTCC  
TCCCATCAGCTGCCCAGAAAATGAAAAAGGCCCATTTCTTAAAAACCTGGTTCAGATCAAATCCAACAAAGACAA  
AGAAGGCAAGGTTTTCTACAGCATCACTGGCCAAGGAGCTGACACACCCCTGTTGGTGTCTTTATTATTGAAAG  
AGAAACAGGATGGCTGAAGGTGACAGAGCCTCTGGATAGAGAACGCATTGCCACATACACTCTCTTCTCTCACGC  
TGTGTATCCAAACGGGAATGCAGTTGAGGATCCAATGGAGATTTTGATCACGGTAACCGATCAGAATGACAACAA  
GCCCCAATTACCCAGGAGGTCTTTAAGGGGTCTGTATGGAAGGTGCTCTTCCAGGAACCTCTGTGATGGAGGT  
CACAGCCACAGACGCGGACGATGATGTGAACACCTACAATGCCGCCATCGTTACACCATCCTCAGCCAAGATCC  
TGAGCTCCCTGACAAAAATATGTTACCATTAACAGGAACACAGGAGTCATCAGTGTGGTCACCACTGGGCTGGA  
CCGAGAGAGTTTTCCCTACGTATACCTGGTGGTTCAAGCTGCTGACCTTCAAGGTGAGGGGTTAAGCACAACAGC  
AACAGCTGTGATCACAGTCACTGACACCAACGATAATCCTCCGATCTTCAATCCCACCACGTACAAGGGTCAGGT  
GCCTGAGAACGAGGCTAACGTCGTAATCACCACACTGAAAGTGACTGATGCTGATGCCCCAATACCCAGCGTG  
GGAGGCTGTATACCATATTGAATGATGATGGTGGACAATTTGTCTCACCACAAATCCAGTGAACAACGATGG  
CATTTTGAAAACAGCAAAGGGCTTGATTTTGAGGCCAAGCAGCAGTACATTCTACACGTAGCAGTGACGAATGT  
GGTACCTTTTGAGGTCTCTCTCACCACCTCCACAGCCACCGTCACCGTGGATGTGCTGGATGTGAATGAAGCCCC  
CATCTTTGTGCTCCTGAAAAGAGAGTGGAAGTGTCCGAGGACTTTGGCGTGGGCCAGGAAATCACATCCTACAC  
TGCCAGGAGCCAGACACATTTATGGAACAGAAAATAACATATCGGATTTGGAGAGACACTGCCAACTGGCTGGA  
GATTAATCCGGACACTGGTGCCATTTCCACTCGGGCTGAGCTGGACAGGGAGGATTTTGAGCACGTGAAGAACAG  
CACGTACACAGCCCTAATCATAGCTACAGACAATGGTTCTCCAGTTGCTACTGGAACAGGGACACTTCTGCTGAT  
CCTGTCTGATGTGAATGACAACGCCCCCATACCAGAACCTCGAACTATATTCTTCTGTGAGAGGAATCCAAAGCC  
TCAGGTCAATAACATCATTGATGCAGACCTTCTCCCAATACATCTCCCTTCACAGCAGAACTAACACACGGGGC  
GAGTGCCAACCTGGACCATTAGTACAACGACCCAACCAAGAATCTATCATTTTGAAAGCCAAAGATGGCCTTAGA  
GGTGGGTGACTACAAAATCAATCTCAAGCTCATGGATAACCAGAAATAAAGACCAAGTGACCACCTTAGAGGTGAG  
CGTGTGTGACTGTGAAGGGGCGCGCGCTGTGTAGGAAGGCACAGCCTGTGCAAGCAGGATTGCAAAATCCTGTC  
CATTTCTGGGGATTCTTGGAGGAATCTTGCTTTGCTAATTCTGATTCTGCTGCTCTTGCTGTTTTCTTCGGAGGAG  
AGCGGTGGTCAAAGAGCCCTTACTGCCCCAGAGGATGACACCCGGGACACGTTTTATTACTATGATGAAGAAGG  
AGGCGGAGAAGAGGACCAGGACTTTGACTTGAGCCAGCTGCACAGGGGCTGGACGCTCGGCCTGAAGTGACTCG  
TAACGACGTTGCACCAACCTCATGAGTGTCCCCGGTATCTTCCCCGCCCTGCCAATCCCGATGAAATTGGAAA  
TTTTATTGATGAAAATCTGAAAGCGGCTGATACTGACCCACAGCCCCGCCCTTATGATTCTCTGCTCGTGTGTTGA  
CTATGAAGGAAGCGGTTCCGAAGCTGCTAGTCTGAGCTCCCTGAACTCCTCAGAGTCAGACAAAGACCAGGACTA  
TGACTACTTGAACGAATGGGGCAATCGCTTCAAGAAGCTGGCTGACATGTACGGAGGCGGCGAGGACGACTAGGG  
GACTCGAGAGAGGCGGGCCCCAGACCCATGTGCTGGGAAATGCAGAAATCACGTTGCTGGTGGTTTTTTCAGCTCC  
CTTCCCTTGAGATGAGTTTTCTGGGGAAAAAAAAGAGACTGGTTAGTGATGCAGTTAGTATAGCTTTTATACTCTCT  
CCACTTTATAGCTCTAATAAGTTTGTGTTAGAAAAGTTTCGACTTATTTCTTAAAGCTTTTTTTTTTTTCCCATC  
ACTCTTTACATGGTGGTGATGTCCAAAAGATACCCAAATTTAATATTCCAGAAGAACAACTTTAGCATCAGAAG  
GTTACCCAGCACCTTGCAGATTTTCTTAAGGAATTTTGTCTCACTTTTAAAAAGAAGGGGAGAAGTCAGCTACT  
CTAGTTCTGTTGTTTTGTGTATATAATTTTTTAAAAAAATTTGTGTGCTTCTGCTCATTACTACACTGGTGTGT  
CCCTCTGCCTTTTTTTTTTTTTTAAAGACAGGTCTCATTCTATCGGCCAGGCTGGAGTGCAGTGGTGAATCAC  
AGCTCACTGCAGCCTTGCTCTCCAGGCTCAAGCTATCCTTGACCTCAGCCTCCCAAGTAGCTGGGACCACAGG  
CATGCACCACTACGCATGACTAATTTTTTAAATATTTGAGACGGGGTCTCCCTGTGTTACCCAGGCTGGTCTCAA  
ACTCCTGGGCTCAAGTGATCCTCCCATCTTGGCCTCCAGAGTATTGGGATTACAGACATGAGCCACTGCACCTG  
CCCAGCTCCCCAACTCCCTGCCATTTTTTAAAGAGACAGTTTCGCTCCATCGCCAGGCTGGGATGCAGTGATGT

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**FIGURE 93B**

GATCATAGCTCACTGTAACCTCAAACCTCTGGGGCTCAAGCAGTTCTCCCACCAGCCTCCTTTTTATTTTTTTGTA  
CAGATGGGGTCTTGCTATGTTGCCCAAGCTGGTCTTAACTCCTGGCCTCAAGCAATCCTTCTGCCTTGGCCCCC  
CAAAGTGCTGGGATTGTGGGCATGAGCTGCTGTGCCCAGCCTCCATGTTTTAATATCAACTCTCACTCCTGAATT  
CAGTTGCTTTGCCAAGATAGGAGTTCTCTGATGCAGAAATTATTGGGCTCTTTTAGGGTAAGAAGTTTGTGTCT  
TTGTCTGGCCACATCTTGACTAGGTATTGTCTACTCTGAAGACCTTTAATGGCTTCCCTCTTTCATCTCCTGAGT  
ATGTAACCTTGCAATGGGCAGCTATCCAGTGACTTGTTCTGAGTAAGTGTGTTTATTAAATGTTTATTAGCTCTGA  
AGCAAGAGTGATATACTCCAGGACTTAGAATAGTGCCTAAAGTGCTGCAGCCAAAGACAGAGCGGAACCTATGAAA  
AGTGGGCTTGGAGATGGCAGGAGAGCTTGTCATTGAGCCTGGCAATTTAGCAAACCTGATGCTGAGGATGATTGAG  
GTGGGTCTACCTCATCTCTGAAAATTCTGGAAGGAATGGAGGAGTCTCAACATGTGTTTCTGACACAAGATCCGT  
GGTTTGACTCAAAGCCCAGAATCCCCAAGTGCTGCTTTTGATGATGTCTACAGAAAATGCTGGCTGAGCTGAA  
CACATTTGCCCAATTCCAGGTGTGCACAGAAAACCGAGAATATTCAAATTTCCAAATTTTTTCTTAGGAGCAAGA  
AGAAAATGTGGCCCTAAAGGGGGTTAGTTGAGGGGTAGGGGGTAGTGAGGATCTTGATTGGATCTCTTTTTATT  
TAAATGTGAATTTCACTTTTGACAATCAAAGAAAAGACTTTTGTTGAAATAGCTTTACTGTTTCTCAAGTGTTT  
TGGAGAAAAAATCAACCCTGCAATCACTTTTTGGAATTGTCTTGATTTTTTCGGCAGTTCAAGCTATATCGAATA  
TAGTTCTGTGTAGAGAATGTCACTGTAGTTTTGAGTGTATACATGTGTGGGTGCTGATAATTGTGTATTTCTTT  
GGGGGTGGAAAAGGAAAACAATTCAAGCTGAGAAAAGTATTCTCAAAGATGCATTTTTATAAATTTTATTAAACA  
ATTTTGTTAAACCATAAAAAAAAAAAAAA

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**FIGURE 94**

MGPWSRSL SALLLLLQVSSWLCQEPEPCHPGFDAESYTFVPRRHLEGRVLGRVNFEDCTGRQRTAYFSLDTRF  
KVGTDGVITVKRPLRFHNPQIHFLVYAWDSTYRKFSKVTLN TVGHHHRPPPHQASVSGIQAELLTFPNSSPGLR  
RQKRDWVIPPI SCPENEGPFPKNLVQIKSNKDKEGKVFYSITGQGADTPPVGVFIIERETGWLKVTEPLDRERI  
ATYTLF SHA VSSNGNAVEDPMEILITVTDQNDNKPEFTQEVFKGSVMEGALPGTSVMEVTATDADDDVNTYNAAI  
AYTILSQDPELPDKNMFTINRNTGVISVVT TGLDRESFPTYTLVVQAADLQGEGLSTTATAVITVTDNDNPPIF  
NPTTYKGQVPENEANVVITTLKVTDADAPNTPAWEAVYTI LNDDGGQFVVTTNPNVNDGILKTAKGLDFEAKQQY  
ILHVAVTNVVPFEVSLTTSTATVTVDVLDVNEAPIFVPEPEKRVEVSEDFGVGQEITSYTAQEPDTFMEQKIT YRI  
WRDTANWLEINPDTGAISTRAELDREDFEHVKNSTYTALI IATDNGSPVATGTGTLLLILSDVNDNAPIPEPRTI  
FFCERNPKPQVINIIDADLPNTPFTAE LTHGASANWTIQYNDPTQESIILKPKMALEVGDYKINLKLMDNQNK  
DQVTTLEVSVCDCEGAAGVCRKAQPVEAGLQIPAILGILGGILALLILILLLLLLFLRRRAVVKEPLLPPEDDTRD  
NVYYYDEEGGGEEDQDFDLSQLHRGLDARPEVTRNDVAP TLMSVPRYLPRPANPDEIGNFIDENLKAADTDPTAP  
PYDSLLVFDYEGSGSEAASLSSLNSSES DKDQDYDYLNEWGNRFKKLADMYGGGEDD

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**FIGURE 95A**

TCTGTCGACTTGCCCCAGAGCTGATCCTTGTCTTTGTCCACTTCTCAGCGAGGATGGCACTTCAGGGAGCCCTTC  
CCTTACTATCGCAGAGAGAGCAGGCCCTCCCCAGTCATGTCCAACCCAGAACTCTGTTTTGTTTTCTTCATAGCC  
CTAGCATCACAGAAAATCACCTGTGCATTATGGATGTCCACGGGGGCAAGGGCTTTGTGTTGCTTAACCCAGC  
ATCCTGAACCGTGTGTTGTTGAATGAATACAGAACCCCGTTTGCTCTGGGAGAGCACAGAAAACAGTCTTCTATCA  
TATATCATAGCCAGCTGCAAACAGCAGATGGCTTCCCATATCCAGAGAGTAAGAACCAGAGAGAGAGAGAAAGA  
GAGAGAGTTTGGGTCTTTCTCCTCTGTGCCTGCTCTCTCCAGAGAACTGGAGGGGTAGCAGTTAGCATTCCCCC  
GCTGGTTCCACCAAGCACAGTCAAGGTCTCTAGGACATGGCCACCCCTCACCTGTGGAAGCGGTCTGCTGGGGT  
GGGTGGGTGTTAGTTGGTTCTGGTTTGGGTGAGAGACACCCAGTGGCCCAGGTGGGCGTGGGGCCAGGGCGCAGA  
CGAGAAGGGGCACGAGGGCTCCGCTCCGAGGACCCAGCGGCAAGCACCGGTCCCGGGCGCGCCCCAGCCCCACCA  
CTCGCGTGCCACGGCGGCATTATTCCTATAAGGATCTGAACGATCCGGGGGCGGCCCCGCCCGTTACCCCTT  
GCCCCCGGCCCGCCCCCTTTTTGGAGGGCCGATGAGGTAATGCGGCTCTGCCATTGGTCTGAGGGGGCGGGCCC  
CAACAGCCCCGAGGCGGGGTCCCCGGGGGCCAGCGCTATATCACTCGGCCGCCAGGCAGCGGCGCAGAGCGGGC  
AGCAGGCAGGCGGCGGGCGCTCAGACGGCTTCTCCTCCTCCTCTTGCTCCTCCAGCTCCTGCTCCTTCGCCGGGA  
GGCCGCCCGCCGAGTCTGCGCCAGCGCCGAGGCAGCCTCGCTGCGCCCCATCCCGTCCCGCCGGGCACTCGGAG  
GGCAGCGCGCCGGAGGCCAAGGTTGCCCGCACGGCCCCGGCGGGCGAGCGAGCTCGGGCTGCAGCAGCCCCGCCG  
GCGGCGCGCACGGCAACTTTGGAGAGGCGAGCAGCAGCCCCGGCAGCGGCGGCAGCAGCGGCAATGACCCCTTGG  
CTCGGGCTCATCGTGCTCCTGGGCAGCTGGAGCCTGGGGGACTGGGGCGCCGAGGCGTGCACATGCTCGCCCAGC  
CACCCCCAGGACGCCTTCTGCAACTCCGACATCGTGATCCGGGCCAAGGTGGTGGGGAAGAAGCTGGTAAAGGAG  
GGGCCCCCTCGGCACGCTGGTCTACACCATCAAGCAGATGAAGATGTACCGAGGCTTCACCAAGATGCCCCATGTG  
CAGTACATCCACACGGAAGCTTCCGAGAGTCTCTGTGGCCTTAAGCTGGAGGTCAACAAGTACCAGTACCTGCTG  
ACAGGTCGCGTCTATGATGGCAAGATGTACACGGGGCTGTGCAACTTCGTGGAGAGGTGGGACCAGCTCACCCCTC  
TCCCAGCGCAAGGGGCTGAACTATCGGTATCACCTGGGTTGTAAGTCAAGATCAAGTCTGCTACTACCTGCCT  
TGCTTTGTGACTTCCAAGAACGAGTGTCTCTGGACCGACATGCTCTCCAATTTCCGGTTACCCTGGCTACCAGTCC  
AAACTACGCCTGCATCCGGCAGAAGGGCGGCTACTGCAGCTGGTACCGAGGATGGGCCCCCCCCGATAAAAAGC  
ATCATCAATGCCACAGACCCCTGAGCGCCAGACCCTGCCCCACCTCACTTCCCTCCCTTCCCGCTGAGCTTCCCT  
TGGACACTAACTCTTCCAGATGATGACAATGAAATTAGTGCTGTTTTCTTGCAAATTTAGCACTTGGAACATT  
TAAAGAAAGGTCTATGCTGTATATGGGGTTTATTGGGAAGTATCCTCCTGGCCCCACCCTGCCCTTCTTTTTG  
GTTTTGACATCATTATTTCCACCTGGGAATTTCTGGTGCCATGCCAGAAAAGATGAGGAACCTGTATTCTCTT  
CTTCGTGATAATATAATCTCTATTTTTTTTAGGAAAACAAAATGAAAACTACTCCATTTGAGGATTGTAATTC  
CACCCCTCTTGCTTCTTCCCCACCTCACCATCTCCAGACCCTCTTCCCTTTGCCCTTCTCCTCCAATACATAAA  
GGACACAGACAAGGAAGTGTGTAAGGCCAACCATTTCAGGATCAGTCAAAGGCAGCAAGCAGATAGACTCAAG  
GTGTGTGAAAGATGTTATACACCAGGAGCTGCCACTGCATGTCCCAACCAGACTGTGTCTGTCTGTCTGCATG  
TAAGAGTGAGGGAGGGAAGGAAGGAAGTACAAGAGAGTGGAGATGATGCAGCACACACACAATTCCCCAGCCCA  
GTGATGCTTGTGTTGACCAGATGTTCTGAGTCTGGAGCAAGCACCCAGGCCAGAATAACAGAGCTTTCTTAGTT  
GGTGAAGACTTAAACATCTGCCTGAGGTGAGGAGCAATTTGCCTGCCTTGTACAAAAGCTCAGGTGAAAGACTG  
AGATGAATGTCTTTCTCTCCCTGCCTCCACACAGACTTCTCCTGGAAAACGCTTTGGTAGATTGGCCAGGAG  
CTTTCTTTTATGTAAATTGGATAAATACACACACCATACTATCCACAGATATAGCCAAGTAGATTGGGTAGA  
GGATACTATTTCCAGAATAGTGTGTTAGCTCACCTAGGGGGATATGTTGTATACACATTTGCATATACCCACATG  
GGGACATAAGCTAATTTTTTTACAGGACACAGAAATCTGTTCAATGCTGTTAAATATGCCAATAGTTTAATCTCT  
TCTATTTTGTGTGCTTGCTTGTGTTGAAGAAAATCATGACATTCGAAGTTGACATTTTTTTTTTCAATTTAATTAA  
AATTTGAAATTCGAACACCGTCAGCACCCCTCTCTCCCTATCATGGGTCATCTGACCCCTGTCCGTCTCCTTGT  
CCCTGCTTCATGTTGGGGGCCTTTCTTTAACTGCCTTCTGGCTTAGCTCAGATGGCAGATGAGAGTGTAGTCA  
AGGGCCTGGGCACAGGAGGGAGAGCTGCAGAGTGTCTGCCTGCCTTGGCTGGAGGGACACCTCTCCTGGGTGTG  
GAGACAGCTTGGTTCCCTTTCCCTAGCTCCCTGGTGGGTGAATGCCACCTCCTGAGATCCTCACCTCTTGAAT  
AAAATTGTTGGTCACTGGGGAAAGCCTGAGTTTGCAACCAGTTGTAGGGTTTCTGTTGTGTTTTTTTTTTTTTT  
TTGAAATAAACTATAATATAAATCTCCTATTAAATAAAATATTTTAAAGTTTGTAGTGTCAAAGTGAGATGCT  
GAGAGTAGGTGATAATGTATATTTACAGAGTGGGGGTGGCAGGATGGTGACATTGAACATGATTGCTCTCTGT  
CTCTTTTTTCAGCTTATGGGTATTTATCTTCTATTAGTATTTGTATCTTCAGTTTCACTTTAGGAAACAGA

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**FIGURE 95B**

GCTGCCAATTGAAACAGAAGAAGAAAAAAAAAAAAAGCAGCAGACAACACACTGTAGAGTCTTGCACACACACAA  
GTGCCCAGGCAAGGTGCTTGGCAGAACCGCAGAGTGGGAAGAGAGTACCGGCATCGGGTTTCCTTGGGATCAATT  
TCATTACCGTGTACCTTTCCCATTTGTGGTCATGCCATTTGGCAGGGGGAGAATGGGAGGCTTGGCCTTCTTTGTG  
AGGCAGTGTGAGCAGAAGCTGATGCCAGCATGTCACTGGTTTTGAAGGGATGAGCCCAGACTTGATGTTTTGGGA  
TTGTCCTTATTTTAACCTCAAGGTCTCGCATGGTGGGGCCCCCTGACCAACCTACACAAGTTCCCTCCCACAAGTG  
GACATCAGTGTCTTCTCTGTGAGGCATCTGGCCATTCGCACTCCCTGGTGTGGTCAGCCTCTCTCACACAAGGAG  
GAACTTGGGTGAAGGCTGAGTGTGAGGCACCTGAAGTTTCCCTGCGGAGTCGATAAATTAGCAGAACCACATCCC  
CATCTGTTAGGCCTTGGTGAGGAGGCCCTGGGCAAAGAAGGGTCTTTCGCAAAGCGATGTCAGAGGGCGGTTTTG  
AGCTTTCTATAAGCTATAGCTTTGTTTATTTACCCGTTCACTTACTGTATAATTTAAATCATTATGTAGCTG  
AGACACTTCTGTATTTCAATCATATCATGAACATTTTATTTTGCTAAATCTTGTGTCTGTGTAGGCTGTAATAT  
GTGTACATTGTGTTTTAAGAGAAAAATGAAACCCACATGCCGCCATTTTCCTGAATCAAATCTGCAGTGGAATGG  
AGAGGAAAATACTTCTAGGCAAGCAGCTAGACTGGTGAATTGGGGGAAATAGAAGGAAGTAGTAACTGAGACTCC  
TCCAGCCTCCTCCCTATTGGAATCCCAATGGCTCCTGGAGTAGGAAAAAGTTTAAACTACATTCATGTTCTTGT  
TCTGTGTCACTCGGCCCTGGGTAGTCTACCATTTACTTCACCCCAAGTCCTGCTGCCCATCCAGTTGGGAAGCCA  
TGATTTTCCTAAGAATCCAGGGCCATGGGAGATACAATTCCAAGTTCTCGCTTCCTCCTTTGGGCATCTCTTCTG  
CCTCCCAATCAAGGAAGCTCCATGCTCAGGCTCTCAGCTCTCGGGCCAGTGCTCTGCTCTGTCCAGGGTAGGTAA  
TACTGGGAGACTCCTGTCTTTTACCCTCCCCCTCGTTCCAGACCTGCCTCATGGTGGCAACATGGTTCTTGAACAA  
TTAAAGAAACAAATGACTTTTTTGAATAGCCCTGTCTAGGGCAAAGTGTGGCCCCCAGGAGACACTACCCTTCCA  
TGCCCCAGACCTCTGTCTTGCATGTGACAATTGACAATCTGGACTACCCCAAGATGGCACCCAAGTGTTTGGCTT  
CTGGCTACCTAAGGTTAACATGTCACTAGAGTATTTTATGAGAGACAAACATTATAAAAATCTGATGGCAAAAAG  
CAAAACAAAATGGAAAGTAGGGGAGGTGGATGTGACAACAACCTCCAAATTGGCTCTTTGGAGGCGAGAGGAAGG  
GGAGAACTTGGAGAATAGTTTTTGTCTTTGGGGGTAGAGGCTTCTTAGATTCTCCAGCATCCGCCTTTCCCTTTA  
GCCAGTCTGCTGTCTGAAACCCAGAAGTGATGGAGAGAAACCAACAAGAGATCTCGAACCTGTCTAGAAGGAA  
TGTATTTGTTGCTAAATTCGTAGCACTGTTTACAGTTTTTCCCTCCATGTTATTTATGAATTTTATATTCCGTGAA  
TGTATATTGTCTTGTAATGTTGCATAATGTTCACTTTTTATAGTGTGTCCTTTATTCTAAACAGTAAAGTGGTTT  
TATTTCTATCAC

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**FIGURE 96**

MTPWLGLIVLLGSWSLGDWGAEACTCSPSHPQDAFCNSDIVIRAKVVGKKLVKEGPFGLVYTIKQMKMYRGFTK  
MPHVQYIHTASESLCGLKLEVNKYQYLLTGRVYDGKMYTGLCNFVERWDQLTSLQRKGLNYRYHLGCNCKIKSC  
YYLPCFVTSKNECLWTDMLSNGYPGYQSKHYACIRQGGYCSWYRGWAPPDKSIINATDP





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**FIGURE 98**

MERIPSAQPPPACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSSEDSKETYKLPHRLIEKKRRDRINECIAQL  
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQQKI IALQSGLQAGELSGRNVETGQEMFCSGFQTCA  
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPGKNCVPVIQR  
TFAHSSGEQSGSDTDTDSGYGGESEKGLRSEQPCFKSDHGRRFTMGERIGAIKQEESEPPTKKNRMQLSDDEGH  
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL  
LMPQRLPSPLPAHPSVDSSVLLQALKP IPPLNLETKD

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**FIGURE 99**

CCGCAGCTCCGGGCGGCGTCCGGCAGCGGCGCGAGAGGCGACGAGGCCCGGGCGGCAGGAGCCGGCGCGGCGACCG  
CGGCGAGGGCGGCGGGGACGGAGCAGAGCACGACGAAGACGCACAGGCAGCCGGGCCGGGCGGGCCACGGGGAG  
AGCGGCCGGCGGGCAGCGGGCGGGAGGCCGGGCGGGCGGGCAGCCACCGAGCCGCGAAGCGACATGGTGCTG  
CTCAAGGAGTATCGAGTAATCCTGCCTGTGTCTGTAGATGAGTATCAAGTGGGGCAGCTGTATTCTGTGGCTGAG  
GCCAGTAAAAATGAAACGGGTGGTGGCGAAGGCGTGGAGGTCCTGGTGAATGAGCCCTACGAGAAGGACGGTGAG  
AAAGGCCAGTACACACACAAGATCTACCACCTGCAGAGCAAAGTACCCACGTTTGTTTGAATGCTGGCCCCAGAG  
GGAGCCCTGAATATACACGAGAAAGCCTGGAATGCTTACCCCTACTGCAGAACCGTTATTACAAATGAGTACATG  
AAAGAAGACTTTCTGATTAAAAATTGAAACCTGGCACAAACCAGATCTTGGCACGCAGGAGAATGTGCATAAGCTG  
GAGCCTGAGGCGTGGAACACGTGGAAGCCGTATATATAGACATTGCAGATCGAAGCCAAGTGCTCAGCAAGGAT  
TACAAGGCAGAGGAAGACCCAGCAAAATTTAAATCTATCAAAACAGGCCGAGGACCCCTGGGGCCCCAATTGGAAG  
CAAGAGCTTGTAACCAGAAGGACTGCCCATATATGTGTGCATACAACTGGTGACCGTCAAGTTCAAGTGGTGG  
GGCCTGCAGAACAAAGTGGAGAACTTCATCCATAAGCAAGAGAGGCGTCTGTTTACAACTTCCACAGGCAGCTG  
TTCTGTTGGCTCGATAAGTGGGTTGACCTGACCATGGACGACATTCTGAAGGATGGAAGAAGAGACGAAGAGACAG  
CTGGATGAAATGAGACAAAAGGACCCAGTGAAGGAATGACAGCAGATGACTAAAGCCGCCTTTCCCTCTGCAC  
TTTTTGCAAGACAGTGGTCAACAGGAAGACCCAGCAGCTCCACCCTCCCAAGTGACAGGCCATTTTCGGACGCAG  
CCGTTCTGTGCCATTCTTCAGGCAACTTTTCGATTCTTACTGTAGCTAATTCTAGATGCCCTTCAGTATTGTGA  
ACAAATAGACCGTCTGGTGTACAGAGCCCGGTGTGCAGGAGCCTGCTCCTCCGAGATACGTGGCGTGTAGGTT  
GCTGTAGTTACAGCGCTCCGTCTCTCTCCATTGTGTTCGATCCATTTCTGTGTGTTCCCCAACCTTTATTTT  
CAAGTGACATTTTCAGTC

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**FIGURE 100**

MVLLKEYRVILPVSVDEYQVGQLYSVAEASKNETGGGEGVEVLVNEPYEKDGEKGQYTHKIYHLQSKVPTFVRML  
APEGALNIHEKAWNAYPYCRTVITNEYMKEDFLIKIETWHKPDLTQENVHKLEPEAWKHVEAVYIDIADRSQVL  
SKDYKAEEDPAKFKSIKTGRGPLGPNWKQELVNQKDCPYMCAYKLVTVKFKWWGLQNKVENFIHKQERRLFTNFH  
RQLFCWLDKWVDLTMDDIRMEEETKRQLDEMROKDPVKGMTADD

[illegible]

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**FIGURE 102**

MEAAHFFEGTEKLLEVWFSRQQPDANQGSGDLRTIPRSEWDILLKDVQCSIISVTKTDKQEAYVLSESSMFVSKR  
RFILKTCGTLLLLKALVPLLKLARDYSGFDSIQSFFYSRKNEFMKPSHQGYPHRNFQEEIEFLNAIFPNGAGYCMG  
RMNSDCWYLYTLDFPESRVISQPDQTLLEILMSELDPAVMDQFYMKDGVTAKDVTRESGIRDLIPGSVIDATMFNP  
CGYSMNGMKSDGTIYWTIIHITPEPEFSYVSFETNLSQTSYDDLIRKVVEVFKPGKFVTTLFVNQSSKCRTVLASPO  
KIEGFKRLDCQSAMFNDYNFVFTSFAKKQQQQQS

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**FIGURE 103**

CCCCTTGGTTCCGCCCGCGCGTCACGTGACCCCAGCGCCTACTTGGGCTGAGGAGCCGCCGCGTCCCCCTCGCCGA  
GTCCCCTCGCCAGATTCCCTCCGTGCGCGCCAAGATGATGTGCGGGGCGCCCTCCGCCACGCAGCCGGCCACCGC  
CGAGACCCAGCACATCGCCGACCAGGTGAGGTCCCAGCTTGAAGAGAAAAGAAAACAAGAAGTTCCCTGTGTTTAA  
GGCCGTGTCATTCAAGAGCCAGGTGGTCGCGGGGACAACTACTTCATCAAGGTGCACGTCGGCGACGAGGACTT  
CGTACACCTGCGAGTGTTCCAATCTCTCCCTCATGAAAACAAGCCCTTGACCTTATCTAACTACCAGACCAACAA  
AGCCAAGCATGATGAGCTGACCTATTTCTGATCCTGACTTTGGACAAGGCCCTTCAGCCAGAAGACTGACAAAGT  
CATCCTCCGTCTACCAGAGCGTGCACTTGTGATCCTAAAATAAGCTTCATCTCCGGGCTGTGCCCTTGGGGTGG  
AAGGGGCAGGATTCTGCAGCTGCTTTTGCATTTCTCTCCTAAATTTTCATTGTGTTGATTTCTTTCCTTCCCAAT  
AGGTGATCTTAATTACTTTCAGAATATTTTCAAAATAGATATATTTTAAATCCTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 104**

MMCGAPSATQPATAETQHIADQVRSQLEEKENKKFPVFKAVSFKSQVVAGTNYFIKVHVGDEDFVHLRVFQSLPH  
ENKPLTLSNYQTNKAKHDELTYP



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**FIGURE 105**

GAGCGGAGCCGCGGGCGGGAGGGCGGACGGACCGACTGACGGTAGGGACGGGAGGCGAGCAAGATGCGCGCAGACG  
CAGGGCACCCGGAGGAAAGTCTGTTACTACTACGACGGGGATGTTGGAAATTACTATTATGGACAAGGCCACCCA  
ATGAAGCCTCACCGAATCCGCATGACTCATAATTTGCTGCTCAACTATGGTCTCTACCGAAAAATGGAAATCTAT  
CGCCCTCACAAAGCCAATGCTGAGGAGATGACCAAGTACCACAGCGATGACTACATTAAATTCCTGCGCTCCATC  
CGTCCAGATAACATGTCGGAGTACAGCAAGCAGATGCAGAGATTCAACGTTGGTGAGGACTGTCCAGTATTCGAT  
GGCCTGTTTGAGTTCTGTCAAGTTGTCTACTGGTGGTTCTGTGGCAAGTGCTGTGAACTTAATAAGCAGCAGACG  
GACATCGCTGTGAATTGGGCTGGGGGCTGCACCATGCAAAGAAGTCCGAGGCATCTGGCTTCTGTTACGTCAAT  
GATATCGTCTTGGCCATCCTGGAAGTATCACCAGAGGGTGCTGTACATTGACATTGATATTCACCAT  
GGTGACGGCGTGGAAGAGGCCTTCTACACCACGGACCGGGTCATGACTGTGTCTTTTCATAAGTATGGAGAGTAC  
TTCCCAGGAAGTGGGGACCTACGGGATATCGGGGCTGGCAAAGGCAAGTATTATGCTGTAACTACCCGCTCCGA  
GACGGGATTGATGACGAGTCTATGAGGCCATTTTCAAGCCGGTCATGTCCAAAGTAATGGAGATGTTCCAGCCT  
AGTGCGGTGGTCTTACAGTGTGGCTCAGACTCCCTATCTGGGGATCGGTTAGGTTGCTTCAATCTAACTATCAAA  
GGACACGCCAAGTGTGTGGAATTTGTCAAGAGCTTTAACCTGCCTATGCTGATGCTGGGAGGCGGTGGTTACACC  
ATTCTGAACGTTGCCCCGGTGCTGGACATATGAGACAGCTGTGGCCCTGGATACGGAGATCCCTAATGAGCTTCCA  
TACAATGACTACTTTGAATACTTTGGACCAGATTTCAAGCTCCACATCAGTCCTTCCAATATGACTAACCAGAAC  
ACGAATGAGTACCTGGAGAAGATCAAACAGCGACTGTTTGAGAACCTTAGAATGCTGCCGCACGCACCTGGGGTC  
CAAATGCAGGCGATTCTTGAGGACGCCATCCCTGAGGAGAGTGGCGATGAGGACGAAGACGACCCTGACAAGCGC  
ATCTCGATCTGCTCCTCTGACAAACGAATTGCCTGTGAGGAAGAGTTCTCCGATTCTGAAGAGGAGGGAGAGGGG  
GGCCGCAAGAACTCTTCCAACCTCAAAAAAGCCAAGAGAGTCAAACAGAGGATGAAAAAGAGAAAGACCCAGAG  
GAGAAGAAAGAAGTACCGAAGAGGAGAAAACCAAGGAGGAGAAGCCAGAAGCCAAAGGGGTCAAGGAGGAGGTC  
AAGTTGGCCTGAATGGACCTCTCCAGCTCTGGCTTCCTGCTGAGTCCCTCACGTTTCTTCCCCAACCCCTCAGAT  
TTTATATTTTCTATTTCTCTGTGTATTTATATAAAAAATTTATTAAATATAAATATCCCCAGGGACAGAAACCAAG  
GCCCCGAGCTCAGGGCAGCTGTGCTGGGTGAGCTCTTCCAGGAGCCACCTTGCCACCCATTCTTCCCGTTCTTAA  
CTTTGAACCATAAAGGGTGCCAGGTCTGGGTGAAAGGGATACTTTTATGCAACCATAAGACAAACTCCTGAAATG  
CCAAGTGCCTGCTTAGTAGCTTTGGAAAGGTGCCCTTATTGAACATTCTAGAAGGGGTGGCTGGGTCTTCAAGGA  
TCTCCTGTTTTTTTTCAGGCTCCTAAAGTAACATCAGCCATTTTTAGATTGGTTCTGTTTTCTGTACCTTCCCACTG  
GCCTCAAGTGAGCCAAGAAACACTGCCTGCCCTCTGTCTGTCTTCTCCTAATTCTGCAGGTGGAGGTTGCTAGTC  
TAGTTTCCTTTTTTGTAGATACTATTTTCATTTTTGTGAGCCTCTTTGTAATAAAATGGTACATTTCT

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**FIGURE 106**

MAQTQGTRRKVCYYYDGDVGNYYYGQGHMPKPHRIRMTHNLLLNYGLYRKMEIYRPHKANAEEMTKYHSDDYIKE  
LRSIRPDNMSEYSKQMQRFNVEDCPVFDGLFEFCQLSTGGSVASAVKLNKQQTDI AVNWAGGLHHAKKSEASGF  
CYVNDIVLAILELLKYHQRVLYIDIDIHHDGVEEAFYTDRVMTVSFHKYGEYFPGTDLRDIGAGKGKYYAVN  
YPLRDGIDDESIEAIFKPVMSKVMEMFQPSAVVLQCGSDSLSGDRLGCFNLTIKGHAKCVEFVKSFNLPMLMLGG  
GGYTIRNVARCWTYETAVALDTEIPNELPYNDYFEYFGPDFKLHISPSNMTNQNTNEYLEKIKQRLFENLRMLPH  
APGVQMQAIPEDAIPESGDEDEDDPKRISICSSDKRIACEEFS DSEEEGEGGRKNSSNFKKAKRVKTEDEKE  
KDPEEKKEVTEEEKTKEEKPEAKGVKEEVKLA

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**FIGURE 107**

CTTTCCCCTTACTCCGCTCCCCTCTTTTCCCCTCCCCTCTCCTCCCCTTCCCCTCTGTTCTCTCCTCCTCTTCCCCTC  
CCCTCCCCCGTCCGGGGCACTCTATATTTCAAGCCACCGTTTCCTGCTTACAAAATGGCCACCGCACGCGACACC  
TACGGTCACGTGGCCTGCCGCCCTCTCAGTTTCGGGAATCTGCCTAGCTCCCCTAAGGGGAGGCTACCCGCGGA  
AGAGCGAGGGCAGATTAGACCGGAGAAATCCCACCACATCTCCAAGCCCGGAACTGAGAGAGGAAGAAGAGTGA  
AGGCCAGTGTAGGAAAAAAAAAAAAACAAAAACAAAAAAACGAAAAACGAAAGCTGAGTGCATAGAGTTGGAAG  
GGGAGCGAATGCGTAAGGTTGGAAAGGGGGGCGAAGAGGCCTAGGTTAACATTTTCAGGCGTCTTAGCCGGTGGA  
AAGCGGGAGACGCAAGTTCTCGCGAGATCTCGAGAACTCCGAGGCTGAGACTAGGGTTTTAGCGGAGAGCACGGG  
AAGTGTAGCTCGAGAGAACTGGGACAGCATTTCGCACCCTAAGCTCCAAGGCAGGACTGCTAGGGGCGACAGGAC  
TAAGTAGGAAATCCCTTGAGCTTAGACCTGAGGGAGCGCGCAGTAGCCGGGCAGAAGTCGCCGCGACAGGGAATT  
GCGGTGTGAGAGGGAGGGCACACGTTGTACGTGCTGACGTAGCCGGCTTTCCAGCGGGTATATTAGATCCGTGGC  
CGCGCGGTGCGCTCCAGAGCCGCGAGTTCTCCCGTGAGAGGGCCTTCGCGGTGGAACAAACACTCGCTTAGCAGCG  
GAAGACTCCGAGTTCTCGGTACTCTTCAGGGATGAGTCATGTGGCAGTGGAAATGCGCTCGGGCTGGACCAGCA  
GTTTGCTGGCCTAGACCTGAACCTCTTCAGATAATCAGAGTGGAGGAAGTACAGCCAGCAAAGGGCGCTATATTCC  
TCCTCATTTAAGGAACCGAGAAGCTACTAGAGGTTTTCTACGATAAAGACAGTTTCAGGGTGGAGTTCTAGCAAAGA  
TAAGGATGCGTATAGCAGTTTTGGATCTCGTAGTGATTCAAGAGGGAAGTCTAGCTTCTTCAGTGATCGTGGAAG  
TGGATCAAGGGGAAGGTTTTGATGATCGTGGACGGAGTGATTACGATGGCATTGGCAGCCGTGGTGACAGAAGTGG  
CTTTGGCAAATTTGAACGTGGTGGAAACAGTCGCTGGTGTGACAAATCAGATGAAGATGATTGGTCAAAAACCACT  
CCCACCAAGTGAACGCTTGGAACAGGAACCTCTTTTCTGGAGGCAACACTGGGATTAATTTTGAGAAATACGATGA  
CATTCCAGTTGAGGCAACAGGCAACAACTGTCTCCACATATTGAAAGTTTCAGTGATGTTGAGATGGGAGAAAT  
TATCATGGGAAACATTGAGCTTACTCGTTATACTCGCCCAACTCCAGTGCAAAAGCATGCTATTCTTATTATCAA  
AGAGAAAAGAGACTTGATGGCTTGTGCCCAACAGGGTCTGGA AAAACTGCAGCATTTCTGTTGCCCATCTTGAG  
TCAGATTTATTAGATGGTCCAGGCGAGGCTTTGAGGGCCATGAAGGAAAATGGAAGGTATGGGCGCCGCAAACA  
ATACCCAATCTCCTTGGTATTAGCACCAACGAGAGAGTTGGCAGTACAGATCTACGAAGAAGCCAGAAAATTTTC  
ATACCGATCTAGAGTTCGTCCTTGCGTGGTTTTATGGTGGTGCCGATATTGGTCAGCAGATTTCGAGACTTGGAACG  
TGGATGCCATTTGTTAGTAGCCACTCCAGGACGTCTAGTGATATGATGGAAGAGGAAAGATTGGATTAGACTT  
TTGCAAATACTTGGTGTAGATGAAGCTGATCGGATGTTGGATATGGGGTTTGAGCCTCAGATTCGTAGAATAGT  
CGAACAAGATACTATGCCTCCAAAGGGTGTCCGCCACACTATGATGTTTAGTGCTACTTTTCTTAAGGAAATACA  
GATGCTGGCTCGTGATTTCTTAGATGAATATATCTTCTTGCTGTAGGAAGAGTTGGCTCTACCTCTGAAAACAT  
CACACAGAAAAGTAGTTTGGGTGGAAGAATCAGACAAACGGTCATTTCTGCTTGACCTCCTAAATGCAACAGGC  
GGATTCACTGACCTTAGTGTTTGTGGAGACCAAAAAGGGTGCAGATTCTCTGGAGGATTTCTTATACCATGAAGG  
ATACGCATGTACCAGCATCCATGGAGACCGTTCTCAGAGGGATAGAGAAGAGGCCCTTCACCAGTTCCGCTCAGG  
AAAAAGCCCAATTTTAGTGCTACAGCAGTAGCAGCAAGAGGACTGGACATTTCAAATGTGAAACATGTTATCAA  
TTTTGACTTGCCAAGTGATATTGAAGAATATGTACATCGTATTGGTCTGACGGGACGTGTAGGAAACCTTGGCCT  
GGCAACCTCATTCTTTAACGAGAGGAACATAAATATTACTAAGGATTTGTTGGATCTTCTTGTGAAAGCTAAACA  
AGAAGTGCCGCTCTTGTTAGAAAACATGGCTTATGAACACCACTACAAGGGTAGCAGTCGTGGACGTTCTAAGAG  
TAGCAGATTTAGTGGAGGGTTTGGTGCCAGAGACTACCGACAAAGTAGCGGTGCCAGCAGTTCCAGCTTCAGCAG  
CAGCCGCGCAAGCAGCAGCCGAGTGGCGGAGGTGGCCACGGTAGCAGCAGAGGATTGGTGGAGGTGGCTATGG  
AGGCTTTTTACAACAGTGATGGATATGGAGGAAATTATACTCCAGGGGGTTGACTGGTGGGGTAACTGAGCCTG  
CTTTGCAGTAGGTACCCCTGCCAAACAAGCTAATATGGAAACCACATGTAACCTTAGCCAGACTATACCTTGTGTA  
GTTTCAAGAACTCGCAGTACATTACCAGCTGTGATTCTCCACTGAAATTTTTTTTTTAAGGGAGCTCAAGGTCAC  
AAGAAGAAATGAAAGGAACAATCAGCAGCCCTGTTTCAAGAGGATCATGCTCATCTGTGGAGCAAGTGCCCCCATG  
AAATGCCATATTTTGTGAAGAAAGTGATGCAGGAATATTAGGGAGTCCAGCATGTAGTCATGGCAGCCTTAGG  
TATTTGAGACCGACCAACCTCCTGATGAAGACAACCATAACTCATGCAGAACTTGAGCGGTGATGCCAGAAAT  
GTGTGAAGTGGTCTGTGACCACAAAGATGAGAACCGCATGCTGAGATTGGTGGAAATGGAGATTTTCAGTGAGCCTA  
CATGCAGATGACATGGTGACACCCGTGCCAGCCTGAGCTGTTTTCTTCTGGCCCTCTTATTACATGAGAAAAAT  
AAACACCTATGCACCTTGGCCTCAAAAAAAAAA

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**FIGURE 108**

MSHVAVENALGLDQQFAGLDLNSSDNQSGGSTASKGRYIPPHLRNREATRGFYDKDSSGWSSSKDKDAYSSFGSR  
SDSRGKSSFFSDRGSGSRGRFDDRGRSDYDGIGSRGDRSGFGKFERGGNSRWCDKSEDDWSKPLPPSERLEQEL  
FSGGNTGINFEKYDDIPVEATGNNPCPHIESFSDVEMGEIIMGNIELTRYTRPTPVQKHAIPIIKEKRDLMACAQ  
TGSGKTA AFLLPILSQIYSDGPG EALRAMKENG RYGRRKQYPISLVLAPTRELAVQIYEEARKFSYRSRVRPCVV  
YGGADIGQQIRD LERGCHLLVATPGRLVDMMERGKIGLDFCKYLVLEADRMLDMGFEPQIRRIVEQDTMPPKGV  
RHTMMFSATFPKEIQMLARDFLDEYIFLAVGRVGSTSENITQKVWVEESDKRSFLLDLLNATGKDSLTLVFVET  
KKGADSLED FLYHEGYACTSIHGDRSQRDREEALHQFRSGKSPILVATAVAARGLDISNVKHVINFDLPSDIEEY  
VHRIGRTGRVGNLGLATSFFNERNINITKDLLDLLVEAKQEVPSWLENMAYEHYKSSSRGRSKSSRFSGGFGAR  
DYRQSSGASSSSFSSSRASSRSRGGGGHGSSRGFGGGGYGGFYNSDGYGGNYNSQGVDDWGN

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**FIGURE 109**

GAGTCACGATGATGGCGGCCACCATCCTGTGGTGAGCTAGCGGATTCCCTGCTTGTCTCGCCGACCCCCCTCGCGC  
CTTCTGCAGACTCCGTGGCTGGCGCTCGGCGCGTGAGGAAGCACGGCGGCCCGAGTTTCGGGGGAAGGCCGAGT  
CGCGGAGGCAGCGGCGCGGTCCGGGGCACGGGCTGGGGGAGAGGCCGCTCCGCTGGGCGAATGTGACAAGCCCCC  
ACCCCCACCGCCTTCCCTCCCCAGAGCGCGAGGAGCGCGGGCGACCCCGGGGCCCGCCAGGCCACAGACCCCCGCC  
CAGCGGCCAGCACCCGGCGCAGGCCCCGGCAGCCGAGCTGCGCGGGCGGCACCAATGCAGGTACCCCTGAAGACCCCTC  
CAGCAGCAGACCTTCAAGATAGACATTGACCCCGAGGAGACGGTGAAAGCACTGAAAGAGAAGATTGAATCTGAA  
AAGGGGAAAGATGCCTTTCCAGTAGCAGGTCAAAAATTAATTTATGCAGGCAAAATCCTCAATGATGATACTGCT  
CTCAAAGAATATAAAATTGATGAGAAAACTTTGTGGTGGTTATGGTGACCAACCCAAAGCAGTGTCCACACCA  
GCACCAGCTACAACCTCAGCAGTCAGCTCCTGCCAGCACTACAGCAGTTACTTCTCCACCACCACAACCTGTGGCT  
CAGGCTCCAACCCCTGTCCCTGCCTTGGCCCCCACTTCCACACCTGCATCCATCACTCCAGCATCAGCGACAGCA  
TCTTCTGAACCTGCACCTGCTAGTGACGCTAAACAAGAGAAGCCTGCAGAAAAGCCAGCAGAGACACCAGTGGCT  
ACTAGCCCCAACAGCAACTGACAGTACATCGGGTGATTCTTCTCGGTCAAACCTTTTTGAAGATGCAACGAGTGCA  
CTTGTGACGGGTGAGTCTTACGAGAATATGGTAACTGAGATCATGTCAATGGGCTATGAACGAGAGCAAGTAATT  
GCAGCCCTGAGAGCCAGTTTCAACAACCCCTGACAGAGCAGTGGAGTATCTTTTAATGGGAATCCCTGGAGATAGA  
GAAAGTCAGGCTGTGGTTGACCCCCCTCAAGCAGCTAGTACTGGGGCTCCTCAGTCTTCAGCAGTGGCTGCAGCT  
GCAGCAACTACGACAGCAACAACCTACAACAACAAGTTCTGGAGGACATCCCCTTGAATTTTTACGGAATCAGCCT  
CAGTTTCAACAGATGAGACAAATTATTTCAGCAGAATCCTTCCCTGCTTCCAGCGTTACTACAGCAGATAGGTGCA  
GAGAATCCTCAATTACTTCAGCAAATTAGCCAACACCAGGAGCATTTTATTTCAGATGTTAAATGAACCAGTTCAA  
GAAGCTGGTGGTCAAGGAGGAGGAGGTGGAGGTGGCAGTGGAGGAATTGCAGAAGCTGGAAGTGGTCATATGAAC  
TACATTCAAGTAACACCTCAGGAAAAAGAAGCTATAGAAAAGGTTAAAGGCATTAGGATTTCTGAAGGACTTGTG  
ATACAAGCGTATTTTGTCTGTGAGAAGAATGAGAATTTGGCTGCCAATTTTCTTCTACAGCAGAACTTTGATGAA  
GATTGAAAGGGACTTTTTTATATCTCACACTTCACACCAGTGCATTACACTAACTTGTTCACTGGATTGTCTGGG  
ATGACTTGGGCTCATATCCACAATACTTGGTATAAGGTAGTAGATTGTTGGGGGTGGGGAGGGAGGGATCTAGGA  
TACAGGGCAGGGATAAATACAGTGCATGTCTGCTTCAATTAGCAGATGCCGCAACTCCACACAGTGTGTAATAA  
TATACAACCAAAAATCAGCTTTTGCAGGTCTTTATTTCTTCTGTAAAACAGTAGGTAACTTTTCTAGGTTTCAC  
TCTTTTATAGTGTACTAGATCCAGAACTTAGTGTAATGCCCTGCTTTATATTTCTTTGACTTAACATTGGTTTCA  
GAAAGAATCTTAGCTACCTAGAATTTACAGTCTCTGTTTCATGGCAACACTGGATAATGGCTTTGTGAAATTTAA  
AAAATTTTGTAGCGACTGTAAACAGAAATGCCAAATTGATGGTTAATTGTTGCTGCTTCAAAAATAAGTATAAA  
ATTAATATGTAAGGAAGCCATTCTTTTCATGTTAAATACTTGGGGTGGGAGGGGAGAAAGGGAACCTTTTCTTAA  
AATGAAAATAATTACTGCTATTTTAAAATTTCTTGATCATTGAATGTGAGACCCCTTCTAACATGATTTGAGAAGC  
TGTACAAGTATAGGCAGAGTTATTTTCTGTTTACATTTTTTTTTTTGTTTTGGGGAAAAAATTGGTAGGTGTCTA  
ATTACTGTTTACTTCATTGTTATATTGCAGTAAAAGTTTTAAAACAACCATTGCATGTTTGCTTTTGATGTATCC  
CTTTGTGAAATTAGCACTTTTGGGGCCAATGGAGAAATGCAGCATTCACTCTCCCTGTCTTTTCCCCTTCCCTCA  
GCAGAAACGTGTTTATCAGCAAGTCGTGAGTCAAACCTGCTGCCTTTTAAAAAACCCACAAAATGCTGATTCAGTT  
CAAAATTAATGCAAATGTTTCAAACCTGGGTTTCTGATATTTGTAAATGTGTTTCTTTATTAGATAAGAGTGTAT  
TACCATTAAAGTCATTAGTATAATATTGCTTTCAAAAAGAAATGGTAGACAAAACCTATAATCCAGCATCTTTTAT  
TGCATTGGAAAGACTGGCAAAGTCTTTTGATGGGTGGGAGATGTGGCTGGAAGTACTTTGGAAATATACAA  
TCAAGATATCTCATGGCATATTAAAAGAAAAATCTTAATAGCAGTGTGGCTTTTATTGGATTTTTTCATCTCA  
GTTTTTCTGTGGAATCTCCTTCATTGGCATTGTTATTTAATCATAAACGGGGCAGATGTCTACTTGTTCAGTTT  
TTCAATCTGTTTTCTG

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**FIGURE 110**

MQVTLKTLQQQTFKIDIDPEETVKALKEKIESEKGDAPVAGQKLIYAGKILNDDTALKEYKIDEKNFVVVMVT  
KPKAVSTPAPATTQOSAPASTTAVTSSTTTTVAQAPTPVPALAPTSTPASITPASATASSEPPAPASAAKQEKPAE  
KPAETPVATSPTATDSTSGDSSRSNLFEDATSALVTGQSYENMVTEIMSMGYEREQVIAALRASFNNDRAVEYL  
LMGIPGDRESQAVVDPQAASTGAPQSSAVAAAAATTTATTTTSSGGHPLEFLRNQPFQQMRQIIQQNP SLLP  
ALLQQIGRENPLLQQISQHQEHFIQMLNEPVQEAGGQGGGGGGSGGIAEAGSGHMNYIQVTPQEKEAIERLKA  
LGFPEGLVIQAYFACEKNENLAANFLLQQNFDED

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FIGURE 111A

AGGTTCAAGTGGAGCTCTCCTAACCGACGCGCGTCTGTGGAGAAGCGGCTTGGTCGGGGGTGGTCTCGTGGGGTC  
CTGCCGTGTTTAGTCGCTTTTCAGGGTTCTTGAGCCCCCTTCACGACCGTCACCATGGAAAGTGTCAACATTGCAGCCT  
GTAAATGAAAATATGCAAGTCAACAAAATAAAGAAAAATGAAGATGCTAAGAAAAGACTGTCTGTTGAAAGAATC  
TATCAAAAGAAAACACAATTGGAACATATTTTGCTCCGCCAGACACCTACATTGGTTCTGTGGAATTAGTGACC  
CAGCAAATGTGGGTTTACGATGAAGATGTTGGCATTAACTATAGGGGAAGTCACTTTTGTTCTGTTTGTACAAA  
ATCTTTGATGAGATTCTAGTTAATGCTGCGGACAACAAACAAAGGGACCCAAAATGTCTTGTATTAGAGTCACA  
ATTGATCCGGAAAACAATTTAATTAGTATATGGAATAATGGAAAAGGTATTCCTGTTGTTGAACACAAAGTTGAA  
AAGATGTATGTCCAGCTCTCATATTTGGACAGCTCCTAACTTCTAGTAAGTATGATGATGATGAAAAGAAAGTG  
ACAGGTGGTCGAAATGGCTATGGAGCCAAATTGTGTAACATATTCAGTACCAAATTTACTGTGGAACAGCCAGT  
AGAGAATACAAGAAAATGTTCAAACAGACATGGATGGATAATATGGGAAGAGCTGGTGAGATGGAAGTCAAGCCC  
TTCAATGGAGAAGATTATACATGTATCACCTTTAGCCTGATTTGTCTAAGTTTAAATGCAAAGCCTGGACAAA  
GATATTGTTGCACTAATGGTCAGAAGAGCATATGATATTGCTGGATCCACCAAAGATGTCAAAGTCTTTCTTAAT  
GGAAATAAACTGCCAGTAAAGGATTTTCGTAGTTATGTGGACATGTATTTGAAGGACAAGTTGGATGAAAGTGGT  
AACTCCTTGAAAGTAATACATGAACAAGTAAACCACAGGTGGGAAGTGTGTTTAACTATGAGTGAAAAAGGCTTT  
CAGCAAATTAGCTTTGTCAACAGCATTGCTACATCCAAGGGTGGCAGACATGTTGATTATGTAGCTGATCAGATT  
GTGACTAACTTGTGATGTTGTGAAGAAGAAGAACAAGGGTGGTGTGCAGTAAAAGCACATCAGGTGAAAAAT  
CACATGTGGATTTTTGTAAATGCCTTAATTGAAAACCCAACCTTTGACTCTCAGACAAAAGAAAACATGACTTTA  
CAACCCAGAGCTTTGGATCAACATGCCAATTGAGTGAAAAATTTATCAAAGCTGCCATTGGCTGTGGTATTGTA  
GAAAGCATACTAACTGGGTGAAGTTTAAAGGCCAAGTCCAGTTAAACAAGAAGTGTTGAGCTGTAAACATAAT  
AGAATCAAGGGAATTTCCAACTCGATGATGCCAATGATGCAGGGGGCCGAAACTCCACTGAGTGTACGCTTATC  
CTGACTGAGGGAGATTACGCCAAAACCTTTGGCTGTTTCAGGCCCTTGGTGTGGTTGGGAGAGACAAATATGGGGTT  
TTCCCTCTTAGAGGAAAAATACTCAATGTTTCGAGAAGCTTCTCATAAGCAGATCATGGAAAATGCTGAGATTAAC  
AATATCATCAAGATTGTGGGTCTTCAGTACAAGAAAACTATGAAGATGAAGATTCATTGAAGACGCTTCGTTAT  
GGGAAGATAATGATTATGACAGATCAGGACCAAGATGGTTCCACATCAAAGGCTTGCTGATTAATTTTATCCAT  
CACAAGTGGCCCTCTCTTCTGCGACATCGTTTTCTGGAGGAATTTATCACTCCATTGTAAAGGTATCTAAAAAC  
AAGCAAGAAAATGGCATTTTTACAGCCTTCTGAAATTTGAAGAGTGAAGAGTTCTACTCCAAATCATAAAAAATGG  
AAAGTCAAAATATTACAAAGGTTTGGGCACCAGCACATCAAAGGAAGCTAAAGAATACTTTGCAGATATGAAAAGA  
CATCGTATCCAGTTCAAATATTCTGGTCCTGAAGATGATGCTGCTATCAGCCTGGCCTTTAGCAAAAAACAGATA  
GATGATCGAAAGGAATGGTTAACTAATTTTCATGGAGGATAGAAGACAACGAAAGTTACTTGGGCTTCTTGAGGAT  
TACTTGTATGGACAAACTACCACATATCTGACATATAATGACTTCATCAACAAGGAACCTTATCTTGTCTCAAT  
TCTGATAACGAGAGATCTATCCCTTCTATGGTGGATGGTTTGAAACCAGGTGAGAGAAAGGTTTTGTTTACTTGC  
TTCAAACGGAATGACAAGCGAGAAGTAAAGGTTGCCCAATTAGCTGGATCAGTGGCTGAAATGTCTTCTTATCAT  
CATGGTGAGATGTCATAATGATGACCATTATCAATTTGGCTCAGAATTTTGTGGGTAGCAATAATCTAAACCTC  
TTGCAGCCCATTTGGTCAGTTTGGTACCAGGCTACATGGTGGCAAGGATTCTGCTAGTCCACGATACATCTTTACA  
ATGCTCAGCTCTTTGGCTCGATTGTTATTTCCACCAAAAGATGATCACACGTTGAAGTTTTTATATGATGACAAC  
CAGCGTGGTGAGCCTGAATGGTACATTCCCTATTATTCCCATGGTGTGATAAATGGTGTGTAAGGAATCGGTACT  
GGGTGGTCTGCAAAATCCCCAATTTGATGTGCGTGAAATTGTAAATAACATCAGGCGTTTGTATGGATGGAGAA  
GAACCTTTGCCAATGCTTCCAAGTTACAAGAACTTCAAGGTACTATTGAAGAACTGGCTCCAAATCAATATGTG  
ATTAGTGGTGAAGTAGCTATTCTTAATTCTACAACATTGAAATCTCAGAGCTTCCCGTCAGAACATGGACCCAG  
ACATACAAAGAACAAGTTCTAGAACCCATGTTGAATGGCACCAGAGAAGACACCTCCTCTCATAACAGACTATAGG  
GAATACCATACAGATACCACTGTGAAATTTGTTGTGAAGATGACTGAAGAAAACTGGCAGAGGCAGAGAGAGTT  
GGACTACACAAAGTCTTCAAACCTCAAACCTAGTCTCACATGCAACTCTATGGTGTCTTTTGGACCAGTAGGCTGT  
TTAAAGAAATATGACACGGTGTGGATATTCTAAGAGACTTTTTTGAAGTCAAGTAAATATTTATGGATTAAGA  
AAAGAATGGCTCCTAGGAATGCTTGGTGCTGAATCTGCTAAACTGAATAATCAGGCTCGCTTTATCTTAGAGAAA  
ATAGATGGCAAAATAATCATTGAAAAATAAGCCTAAGAAAGAATTAATTAAAGTTCTGATTGAGAGGGGATATGAT  
TCGGATCCTGTGAAGGCTGGAAAAGAGCCAGCAAAAGGTTCCAGATGAAGAAGAAAATGAAGAGAGTGACAAC  
GAAAAGGAACTGAAAAGAGTGACTCCGTAACAGATTCTGGACCAACCTTCAACTATCTTCTTGATATGCCCTT  
TGGTATTTAACCAAGGAAAAGAAAGATGAACTCTGCAGGCTAAGAAATGAAAAGAACAAGAGCTGGACACATTA

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**FIGURE 111B**

AAAAGAAAGAGTCCATCAGATTTGTGGAAAGAAGACTTGGCTACATTTATTGAAGAATTGGAGGCTGTTGAAGCC  
AAGGAAAAACAAGATGAACAAGTCGGACTTCCTGGGAAAGGGGGGAAGGCCAAGGGGAAAAAACACAAATGGCT  
GAAGTTTTGCCTTCTCCGCGTGGTCAAAGAGTCATTCCACGAATAACCATAGAAATGAAAGCAGAGGCAGAAAAG  
AAAAATAAAAAGAAAATTAAGAATGAAAATACTGAAGGAAGCCCTCAAGAAGATGGTGTGGAAGTAGAAGGCCTA  
AAACAAAGATTAGAAAAGAAACAGAAAAGAGAACCCAGGTACAAAGACAAAGAAACAAACTACATTGGCATTTAAG  
CCAATCAAAAAGGAAAGAAGAGAAATCCCTGGTCTGATTTCAGAATCAGATAGGAGCAGTGACGAAAGTAATTTT  
GATGTCCCTCCACGAGAAACAGAGCCACGGAGAGCAGCAACAAAACAAAATTCACAATGGATTTGGATTTCAGAT  
GAAGATTTCTCAGATTTTGATGAAAAAACTGATGATGAAGATTTTGTCCCATCAGATGCTAGTCCACCTAAGACC  
AAAAC TTCCCCAAAACCTTAGTAACAAAGAACTGAAACCACAGAAAAGTGTCGTGTCAGACCTTGAAGCTGATGAT  
GTTAAGGGCAGTGTACCACTGTCTTCAAGCCCTCCTGCTACACATTTCCCAGATGAAACTGAAATTACAAACCCA  
GTTCTCAAAAAGAATGTGACAGTGAAGAAGACAGCAGCAAAAAGTCAGTCTTCCACCTCCACTACCGGTGCCAAA  
AAAAGGGCTGCCCCAAAAGGAAGTAAAAGGGATCCAGCTTTGAATTCCTGGTGTCTCTCAAAAGCCTGATCCTGCC  
AAAACCAAGAATCGCCGCAAAAGGAAGCCATCCACTTCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCG  
AAAGCAGTCACAAGCAAGAAATCCAAGGGGGAGAGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCT  
CGGGCAAAATCTGTACGGGCAAGAAACCTATAAAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAAT  
GTGAGGCGATTATTTTAAGTAATTATCTTACCAAGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACCTC  
CTCCCTCTGAATTTAGTTTGGGGAAGGTGTTTTTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTTCTT  
TAGCTTTTTATAATACTGTCTAAATAGTGACCATCTCATGGGCATTGTTTTCTTCTCTGCTTTGTCTGTGTTTTG  
AGTCTGCTTTCTTTTGTCTTTAAACCTGATTTTAAAGTTCTTCTGAAGTGTAGAAATAGCTATCTGATCACTTC  
AGCGTAAAGCAGTGTGTTTATTAACCATCCACTAAGCTAAAACCTAGAGCAGTTTGATTTAAAAGTGTCACCTTC  
CTCCTTTTCTACTTTTCAGTAGATATGAGATAGAGCATAATTATCTGTTTTATCTTAGTTTTATACATAATTTACC  
ATCAGATAGAACTTTATGGTTCTAGTACAGATACTCTACTACACTCAGCCTCTTATGTGCCAAGTTTTCTTTAA  
GCAATGAGAAATTGCTCATGTTCTTCATCTTCTCAAATCATCAGAGGCCAAAGAAAAACACTTTGGCTGTGTCTA  
TAAC TTGACACAGTCAATAGAATGAAGAAAATTAGAGTAGTTATGTGATTATTTAGCTCTTGACCTGTCCCTC  
TGGCTGCCTCTGAGTCTGAATCTCCAAAGAGAGAAACCAATTTCTAAGAGGACTGGATTGCAGAAGACTCGGGG  
ACAACATTTGATCCAAGATCTTAAATGTTATATTGATAACCATGCTCAGCAATGAGCTATTAGATTCATTTTGGG  
AAATCTCCATAATTTCAATTTGTAACTTTGTAAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATG  
TTATCAACGTTTTTGTAAATATTTACTATGTTTTTCTATTAGCTAAATTCCAACAATTTTGTACTTTAATAAA



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**FIGURE 112**

MEVSPLOPVNENMQVNKIKKNEDAKKRLSVERIYQKKTQLEHILLRPDTYIGSVELVTQOMWVYDEDVGINYREV  
TFVPGLYKIFDEILVNAADNKQRDPKMSCIRVTIDPENNLISIWNNKGIPVVEHKVEKMYVPALIFGQLLTSSN  
YDDDEKKVTGGRNGYGAKLCNIFSTKFTVETASREYKKMFQQTWMDNMGRAGEMELKPFNGEDYTCITFPDLK  
FKMQSLDKDIVALMVRRAYDIAGSTKDVKFVFLNGNKLVPKGFRSYVDMYLDKLDDETGNLKVIEHQVNHRWEVC  
LTMSEKGFQQISFVNSIATSKGGRHVDYVADQIVTKLVDVVKKNKGGVAVKAHQVKNHMFVFNALIENPTFDS  
QTKENMTLQPKSFGSTCQLSEKFIKAAIGCGIVESILNWVKFKAQVQLNKKCSAVKHNRIKGIPKLDDANDAGGR  
NSTECTLILTEGDSAHTLAVSGLGVVGRDKYGVFPLRGKILNVREASHKQIMENAEINNIKIVGLQYKKNYEDE  
DSLKTLRYGKIMIMTDQDQDGSNIKGLLINFHHNWPSSLRHRFLEEFITPIVKVSKNQEMAFYSLPEFEWKS  
STPNHKKWKVYKGLGTSTSKAEKEYFADMKRHRIOFKYSGPEDDAISLAFSKKQIDDRKEWLTFNFMEDRRQR  
KLLGLPEDYLYGQTTTYLTYNDFINKELILFSNSDNEERSIPSMVDGLKPGQRKVLFTCFKRNDKREVKVAQLAGS  
VAEMSSYHHGEMSLMMTIINLAQNFVGSNNLNLQPIGQFGTRLHGGKDSASPRYIFTMLSSLARLLFPKDDHT  
LKFLYDDNQRVEPEWYIPIIPMVLINGAEGIGTGWSCKIPNFDVREIVNNIRRLMDGEEPLPMLPSYKNFKGTIE  
ELAPNQYVISGEVAILNSTTIEISELPVRTWTQTYKEQVLEPMLNGTEKTPPLITDYREYHTDTTVKFVVKMTEE  
KLAEAEVRVGLHKVFKLQTSLTCSMVLFHDHVGCLKKYDVLVDILRDFELRLKYYGLRKEWLLGMLGAESAKLNN  
QARFILEKIDGKIIENKPKKELIKVLIQRGYDSDEPVKAWKEAQQKVPDEEENEESDNEKETEKSDSVTDSGPTF  
NYLLDMPLWYLTKEKKDELCLRLRNEKEQELDTLKRKSPDLWKEDLATFIEELEAVEAKEKQDEQVGLPGKGGKA  
KGKKTQMAEVLPSPRGQRVIPRITIEKAEAEKKNKKIKNENTEGSPQEDGVELEGLKQRLKQKREPQTKTK  
KQTTLAFKPIKKGKKRNPWSDSESDRSDESDFVPPRETEPRRAATKTKFTMDLSDSDFDDEKTDDEDFVP  
SDASPPKTKTSPKLSNKKELKPKQSVSDLEADDVKGSVPLSSSPATHFPDETEITNPVPKKNVTVKKTAASQS  
STSTTGAKKRAAPKGTGRDPALNSGVSQKPDPAKTKNRRKRKPKSTSDSDSNFEKIVSKAVTSKKSKEGSDDFHM  
DFDSAVAPRAKSVRAKKPIKYLEESDEDDL

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**FIGURE 113**

AGATGTTTAAAAATACTTTGATXCTCXGTTTCCACCTCTCTTAAATTGTCTTTCCCTATGTTAAATATACAGTCA  
TCACXTTGCTGAAAAAAGTTTCGCAATGAGAACAATCATCTAAAXTGGCTGTAACTAGGTCAGGCGCGGTTGCTC  
ATGCCTGTAAATCCCACTTTGGGAGGCCGAGGCAATTGGATCACCTGAGGTCAGGATTTTGAGACCAGCTTGA  
CCAACATGGTGGAATCCCATCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCACACCCCTGTAATCCC  
ACCTACTCAGGAGGCTGAGGCAGGAAAATCCCTTGAACCCAGGAGGCAAAGGTTGCATTGAGCCGAAATAACACC  
ACTGCACTCCAGCCTGGACGATAGAGTGAGACCCCATCTCAAAAAAAGAGCAGCTGTGACAAATGCCTGTATTGA  
ATTGCAGGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAGGGCTGCCCCAAAAGGAATAAAAGGGATCCA  
GCTTTGAATTCTGGTGTCTCTCAAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAGGAAGCCATCCACT  
TCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCGAAAGCAGTCACAAGCAAGGTGAGTGTGATCCTAGT  
CAGTCCTTTTGCTGTAGATGTTCTGAAACACGTAACCTAAGCCATTGTTCTTAAAAATTTGGCATATCTTTAAGAA  
AATTAACCTCTCATATTCTGTTAGCTTTTACTGTACATATTTAGTTTTAACAAAGTTAAATATGCCACTTATTTGG  
CCAATGGAAGAGTTGGCCTTAGATCTGCTTCTTATTACTTGGTAGAAAATAGAAAACCTCCTGAATATAGTGTCT  
TGATACATTTTTTTTACATTACAATTATGTTGTGAGATTTACAATGTGCAAGTTACCTGGGCTTTTCTCTTTTAGA  
AATCCAAGGGGGAGAGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAATCTGTACGGG  
CAAAGAAACCTATAAAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAAATGTGAGGCGATTATTTTAAG  
TAATTATCTTACCAAGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACTTCCTCCCTCTGAATTTAGTT  
TGGGGAAGGTGTTTTTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTCTTTAGCTTTTTATAATACTGT  
ATAAATAGTGACCATCTCATGGGCATTGTTTTCTTCTCTGCTTTGTCTGTGTTTTGAGTCTGCTTCTTTTGTCTT  
TAAACCTGATTTTTTAAGTTCTTCTGAACTGTAGAAATAGCTATCTGATCACTTCAGCGTAAAGCAGTGTGTTA  
TTAACCATCCACTAAGCTAAAACCTAGAGCAGTTTGATTTAAAAGTGTCACTCTTCTCCTTTTCTACTTTTCTAGTA  
GATATGAGATAGAGCATAATTATCTGTTTTATCTTAGTTTTATACATAATTTACCATCAGATAGAACTTTATGGT  
TCTAGTACAGATACTCTACTACACTCAGCCTCTTATGTGCCAAGTTTTTCTTTAAGCAATGAGAAATTGCTCATG  
TTCTTCATCTTCTCAAATCATCAGAGGCCGAAGAAAAACACTTTGGCTGTGTCTATAAATTGACACAGTCAATAG  
AATGAAGAAAATTAGAGTAGTTATGTGATTATTTTCAAGCTCTTGACCTGTCCCCTCTGGCTGCCTCTGAGTCTGAA  
TCTCCCAAAGAGAGAAACCAATTTCTAAGAGGACTGGATTGCAGAAGACTCGGGGACAACATTTGATCCAAGATC  
TTAAATGTTATATTGATAACCATGCTCAGCAATGAGCTATTAGATTCATTTTGGGAAATCTCCATAATTTCAATT  
TGTAACCTTTGTTAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATGTTATCAACGTTTTTGTAAT  
ATTTACTATGTTTTTCTATTAGCTAAATTCCAACAATTTTGTACTTTAATAAAATGTTCTAAACATTGAAA

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**FIGURE 114**

GAGGCGGGCAAGGCGGGCGCCGAGGTTTGCAAAGGCTCGCAGCGGCCAGAAACCCGGCTCCGAGCGGCGGGCGGCC  
CGGCTTCCGCTGCCCGTGAGCTAAGGACGGTCCGCTCCCTCTAGCCAGCTCCGAATCCTGATCCAGGCGGGGGGCC  
AGGGGCCCCCTCGCCTCCCCCTCTGAGGACCGAAGATGAGCTTCCCTCTTCAGCAGCCGCTCTTCTAAAACATTCAAA  
CCAAAGAAGAATATCCCTGAAGGATCTCATCAGTATGAACTCTTAAACATGCAGAAGCAACTCTAGGAAGTGGG  
AATCTGAGACAAGCTGTTATGTTGCCTGAGGGAGAGGATCTCAATGAATGGATTGCTGTGAACACTGTGGATTTC  
TTTAACCAGATCAACATGTTATATGGAACATTACAGAATTCTGCACTGAAGCAAGCTGTCCAGTCATGTCTGCA  
GGTCCGAGATATGAATATCACTGGGCAGATGGTACTAATATTAAGCAATCAAATGTTCTGCACCAAAAATAC  
ATTGACTATTTGATGACTTGGGTTCAAGATCAGCTTGATGATGAACTCTTTTCTTCTAAGATTGGTGTCCCA  
TTTCCCAAAAACCTTTATGTCTGTGGCAAAGACTATTCTAAAGCGTCTGTTTCAGGGTTTATGCCCATATTTATCAC  
CAGCACTTTGATTCTGTGATGCAGCTGCAAGAGGGGGCCACCTCAACACCTCCTTTAAGCACTTTATTTTCTTT  
GTTTCAGGAGTTTAATCTGATTGATAGGCGTGAGCTGGCACCTCTTCAAGAATTAATAGAGAACTTGGATCAAAA  
GACAGATAAATGTTTCTTCTAGAACACAGTTACCCCTTGCTTCATCTATTGCTAGAACTATCTCATTGCTATCT  
GTTATAGACTAGTGATACAACTTTAAGAAAACAGGATAAAAAGATACCCATTGCCTGTGTCTACTGATAAAATT  
ATCCCAAAGGTAGGTTGGTGTGATAGTTTCCGAGTAAGACCTTAAGGACACAGCCAAATCTTAAGTACTGTGTGA  
CCACTCTTGTTGTTATCACATAGTCATACTTGGTTGTAATATGTGATGGTTAACCTGTAGCTTATAAATTTACTT  
ATTATCTTTTACTCATTACTCAGTCATTTCTTTACAAGAAAATGATTGAATCTGTTTTAGGTGACAGCACAAT  
GGACATTAAGAATTTCCATCAATAATTTATGAATAAGTTCCAGAACAAATTTCTAATAACACAATCAGATTGG  
TTTTATCTTTTATTTTACGAATAAAAAATGTATTTTTCAGTATCCTTGAGATTTAGAACATCTGTGTCACTTCA  
GATAACATTTTAGTTTCAAGTTTGTATGGTAGTGTTTTATAGATAAGATACGTCTATTTTTTCAAATTCATGA  
TTGCAGTTTAAATCATCATATGACGTGTGGGTGGGAGCAACCAAAGTTATTTTTACAGGGACTTTATTTTTTGAT  
CTTTATTTGAGATTGTTTTCATATCTATCTAAATTATTAGGAGTGTGTGTATCAGAAGTAATTTTTTAATGTCTT  
CTAAGGATGGTCTTCCAGGCTTTTAACTGAAAAGCTTAATTCAGATAGTAGCTTTTGGCTGAGAAAAGGAATCC  
AAAATATTAATAAATTTAGATCTCAAACCACTATTTTATTATTTTCATTATTTTTCAGAGGCCTTAAATTCCTG  
GATAAGAGAAATGGAGGAAAATACTCAGAGTACTTGATTATTTTATTTCTTTTATTAATAAATACTTCTATGTT  
TTTATTGTCTCTTGAGCCTTAGTTAAGAGTAGTGTAGAAATGCATGAACCTTCATCCTAATAAGGATAAACTTAA  
GGAAAACCACAATAAACCATGAAGGTGTACACATCCTATAACACAGATAAAGTTTTGGTGTGCTACCTATTCTTG  
AGAGAGTGAGTGAGTGTATGTGTTTAAAGGAAACAAAATGGGAGAAATAAGTTTTAAAAAATCCTCATTTTGTT  
AATATTCAAAGATGGACTGAGCTTCCACTTGGGTTTTATCTTGTTTTAATTGTTTTTGTATCAAACCTTGAAAT  
TCCTCTATTTCTATTGGGATATAAAAGCCTTCCCTTCAGTGAAGAAAACATTTATTTTTTATTGATTCTTAGG  
ATTTAGTAAACTCTAGCTGTCTATTTAAAATGTACTGAGGCACAACAAGTATTATACTGGAAGACTTGCCAACT  
GGCAAAGCTTTAAGTTCATCAGCATTCTATGTGGTTCAGAGCTGTGATTTTTGCAAAGTATTTTACCAACCTCCT  
CGATGGCTTTGATAAAGGTTAGATTTGATGTTTTTTTTTAGATTTATTTTTCTTACTCCACTAACTATAAAGA  
AAATAATTACTTAGAACTCCATTTTAAATAATCATTTCCTAGAAATTCCTAAATATATACAGAATTTTAAAGAA  
AACATTTCTATCTGATTAGTTAGCATCCACATATCATTGAGGAATTAAAGTGTGGGACAGTCATTATT

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**FIGURE 115**

MSFLFSSRSSKTFKPKKNIPEGSHQYELLKHAEATLGSGNLRQAVMLPEGEDLNEWIAVNTVDFFNQINMLYGTI  
TEFCTEASCPVMSAGPRYEYHWADGTNIKKPIKCSAPKYIDYLMTWVQDQLDDETLFPSKIGVPFPKNFMSVAKT  
ILKRLFRVYAHIIYHQHFDSVMQLQEGAHLNTSFKHFIFFVQEFNLIDRRELAPLQELIEKLGSKDR

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**FIGURE 116**

CTCTAAAGCGCCGCAGCTGCCAAAATGCTACAGGTCCAACCTGCTGCCACTGGCAGTAATCGAAGACTTCAGCAG  
ACACAAAATCAAGTAGATGAGGTGGTGGACATAATGCGAGTTAACGTGGACAAGGTTCTGGAAAAGAGACCAGAAG  
CTCTCTGAGTTAGACGACCGTGCAGACGCACTGCAGGCAGGCGCTTCTCAATTTGAAACGAGCGCAGCCAAGTTG  
AAGAGGAAATATTGGTGGAAGAATTGCAAGATGTGGGCAATCGGGATTACTGTTCTGGTTATCTTCATCATCATC  
ATCATCGTGTGGGTGTCTCTTCATTGAAAGAACCGCGGAACCTCAAACTGCTGTTCAAGAAACCTCTTCAAGACT  
TTTGACTTAGAACCTGCTATATTATCAAGCTTACCTACTGTTATCTCTAAAATTTTTTTTGTGTTAATGTAAAGT  
TGAATTTCTAGGAAACGTGCCTTTGTTTTTTAATATGCACTCCAAATTAGAAGGCCGGCCCCGTCCACATTTTGC  
ACAGTGCCTTTACAGATTTACGTATGGGCTGATGAAGAGGCCTTCTTAAGTTCCAGAGTGCTATAATCTAGATGT  
AATGTTGTCACATAATTAATTGCCATTACTCCCCCTTTAG

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**FIGURE 117**

MSTGPTAATGSNRRLLQQTQNQVDEVVDIMRVNVDKVLERDQKLSELDDRADALQAGASQFETSAAKLKRKYWWKN  
CKMWAIGITVLVIFIIIIIVWVSS

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**FIGURE 118**

AGCCAAAAGAGGAAGGGACCGGCCTCCCACGTCCACAGGGACCTGACTTCCACCTCTCTGCCCAGATTTGCTTAT  
GTCACTGTGCGCCCGGGACGGGGAGGTGGGGAGCTGAGGGCAAGTCGCGCCCGCCCTGAAATCCCAGCCGCCTA  
GCGATTGGCTGCAAGGGTCTCGGCTTGGCCGCGGATTAATCACACCCGAGGGCTTGAAAGGTGGCTGGGAGCGCC  
GGACACCTCAGACGGACGGTGGCCAGGGATCAGGCAGCGGCTCAGGCGACCCTGAGTGTGCCCCACCCCGCCAT  
GGCCCGGCTGCTGCAGGCGTCCTGCCTGCTTTCCCTGCTCCTGGCCGGCTTCGTCTCGCAGAGCCGGGGACAAGA  
GAAGTCGAAGATGGACTGCCATGGTGGCATAAGTGGCACCATTACGAGTACGGAGCCCTCACCATTGATGGGGA  
GGAGTACATCCCTTCAAGCAGTATGCTGGCAAATACGTCCCTCTTGTCAACGTGGCCAGCTACTGAGGCCTGAC  
GGGCCAGTACATTGAAGTGAATGCACTACAGGAAGAGCTTGCACCATTGCGTCTGGTCACTTCTGGGCTTTCCCTG  
CAACCAATTTGGAAAACAGGAACCAGGAGAGAACTCAGAGATCCTTCCCTACCCTCAAGTATGTCCGACCAGGTGG  
AGGCTTTGTCCCTAATTTCCAGCTCTTTGAGAAAAGGGGATGTCAATGGAGAGAAAGAGCAGAAATTCTACACTTT  
CCTAAAGAACTCCTGTCTCCTCCACCTCGGAGCTCCTGGGTACATCTGACCGCCTCTTCTGGGAACCCATGAAGGT  
TCACGACATCCGCTGGAATTTGAGAAGTTTCTGGTGGGGCCAGATGGTATACCCATCATGCGCTGGCACCACCG  
GACCACGGTCAGCAACGTCAAGATGGACATCCTGTCTACATGAGGCGGCAGGCAGCCCTGGGGGTCAAGAGGAA  
GTAACTGAAGGCCGTCTCATCCCATGTCCACCATGTAGGGGAGGGACTTTGTTTCAGGAAGAAATCCGTGTCTCCA  
ACCACACTATCTACCCATCACAGACCCCTTTCTATCACTCAAGGCCCCAGCCTGGCACAAATGGATGCATACAG  
TTCTGTGTACTGCCAGGCATGTGGGTGTGGGTGCAATGTGGGTGTTTACACACATGCCTACAGGTATGCGTGATT  
GTGTGTGTGTGATGGGTGTACAGCCACGTGTCTACCTATGTGTCTTTCTGGGAATGTGTACCATCTGTGTGCCT  
GCAGCTGTGTAGTGCTGGACAGTGACAACCCCTTCTCTCCAGTTCTCCACTCCAATGATAATAGTTCACTTATAC  
CTAAACCCAAAGGAAAAACCAGCTCTAGGTCCAATTGTTCTGTCTAACTGATACCTCAACCTTGGGGCCAGCAT  
CTCCCACTGCCTCCAAATATTAGTAACATGACTGACGTCCCCAGAAAGTTTCTGGGTCTACCACACTCCCCAACC  
CCCCACTCCTACTTCTGAAGGGCCCTCCCAAGGCTACATCCCCACCCACAGTTCTCCCTGAGAGAGATCAACC  
TCCCTGAGATCAACCAAGGCAGATGTGACAGCAAGGGCCACGGACCCCATGGCAGGGGTGGCGTCTTCATGAGGG  
AGGGGCCCCAAGCCCTTGTGGGCGGACCTCCCTGAGCCTGTCTGAGGGGCCAGCCCTTAGTGCAATCAGGCTAA  
GGCCCTGGGCAGGGATGCCACCCCTGCTCCTTCGGAGGACGTGCCCTCACCCTCACTGGTCCACTGGCTTGAG  
ACTACCCCGTCTGCCAGTAAAAGCCTTTCTGCAGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 119**

MARLLQASCLLSLLLAGFVSQSRGQEKSKMDCHGGISGTIYEYGALTIDGEEYIPFKQYAGKYVLFVNVASYXGL  
TGQYIELNALQEELAPFGLVILGFFPCNQFGKQEPGENSEILPTLKYVRPGGGFVPNFQLFEKGDVNGEKEQKFYT  
FLKNSCPPTSELLGTSDRLFWEPMKVHDIRWNFEKFLVGPDGIPIMRWHHRTTVSNVKMDILSYMRRQAALGVKR  
K



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**FIGURE 120A**

CGTTGCTGTCTGCGCGTTGCTGTCTGCGGGGGCGCTGTGCGCTGAGGAAGGCGCGGGCGAGCCGGAGCAGAAGAAGGAG  
GGAGGGAGCCAGCCGCTGCAGCCACCACCGCCACCATGTCCTACCAAGGCAAGAAGAACATCCCCGGGATCACGA  
GTGACCGTCTCCTTATCAAGGGAGGCAGAATCGTCAATGATGATCAGTCCTTTTATGCTGATATTTACATGGAAG  
ATGGCTTAATAAAACAAATTGGAGACAATCTGATTGTTCTGAGGAGTGAAGACCATTGAAGCCAATGGGAAGA  
TGGTGATCCCTGGAGGCATCGATGTCCATACTCACTTCCAGATGCCATATAAGGGAATGACCACAGTAGATGACT  
TCTTCCAAGGGACAAAGGCGGCCTTAGCAGGTGGCACCACCATGATCATTGACCATGTGGTGCCTGAGCCTGAGT  
CCAGCCTGACTGAGGCCTATGAGAAATGGAGAGAGTGGGCTGATGGGAAGAGTTGCTGTGACTATGCCCTGCATG  
TGGACATCACCCACTGGAATGACAGCGTCAAGCAGGAAGTGCAGAACCTCATCAAGGACAAAGGGGTAACTCCT  
TCATGGTTTATATAGGCTTATAAGGATTGTATCAAGTATCTAACACAGAGCTCTATGAGATCTTCACCTGCCTGG  
GAGAGCTGGGGGCCATTGCTCAAGTTTATGCTGAGAATGGGGATATCATTGCCCAGGAGCAAACCCGCATGTTGG  
AAATGGGGATAACTGGCCCAGAAGGCCATGTACTGAGCAGGCCAGAAGAGCTGGAAGCTGAGGCTGTGTTCCGTG  
CCATCACCATTTGCCAGCCAAACCAATTGCCCTCTCTACGTACAAAGGTTCATGAGCAAGAGTGCAGCTGACCTCA  
TCTCACAAGCCAGGAAAAAAGGAAATGTAGTCTTTGGTGAGCCCATCACTGCCAGCCTCGGCATAGATGGAACCC  
ATTATTGGAGCAAGAACTGGGCCAAGGCGGCTGCATTGTGTGACATCCCCACCCCTGAGCCCTGACCCAACTACTC  
CGGACTACATCAACTCCTTGCTGGCCAGCGGGGATCTGCAGCTATCTGGGAGTGGCCACTGCACCTTCAGCACTG  
CCCAGAAAGCAATTGGGAAGGACAACCTTACAGCCATTCTGAGGGGCACCAATGGTGTGGAGGAGCGGATGTCTG  
TCATCTGGGACAAGGCTGTGGCCACAGGGAAAATGGACGAAAACCAAGTTCTGTGGGTCTGACAGCGACCTCGTTCATCTGGGATC  
CCAAGATCTTCAACCTGTATCCCCGCAAGGGGAAGAATATCTGTGGGTCTGACAGCGACCTCGTTCATCTGGGATC  
CAGATGCTGTGAAGATCGTCTCTGCCAAGAACCACCAAGTCTGCGGCAGAGTACAACATCTTTGAAGGGATGGAGC  
TGCGCGGGGCTCCTCTGGTTGTCTGTCAGGGCAAGATCATGCTGGAAGATGGCAACCTGCACGTGACCCAGG  
GGGCTGGCCGCTTCATACCCTGCAGCCCGTTCTCCGACTATGTCTACAAGCGCATTAAAGCACGGAGGAAGATGG  
CAGACCTGCATGCCGTCCCAAGGGGCATGTACGATGGGCCTGTGTTTGACCTGACCACCACCCCAAAGGTGGCA  
CCCCCGCAGGCTCTGCTCGGGGCTCTCTACTCGGCCGAACCCACCTGTGAGGAATCTTCATCAGTCGGGATTTA  
GCCTGTCAAGGCACCCAAGTGGATGAGGGGGTTTCGCTCAGCCAGCAAGCGCATCGTGGCCCCCCCCAGGCGGCCGTT  
CTAATATCACATCTCTGAGTTAAGCAAGCCTTCCTCAAAGAGAGGGGGCAGAAGCAAGAAGAGATTGTTTTGAAGC  
CAAAATGGTACACCGATATTTAAGAAGGAAAAGCGAATCCAAACGGTTGTGATCTAAAGAATCAATAAGCCTCAAG  
CCTTATGTTTTCTCCAATGTTACGCTCGCTTGCTAGCTTTACGAATATTGCTTTGTTTTCTGTTTATGCATAGCC  
TTGATTTGTTTGACTCCCCCTCCCCCATTTACATGCATGCAATCAGACAGGCCACTAAGGTAAAAGAGTCTGCTC  
TATCATAGTGTTGAGAGCGTGTGTAGTGCTGCATCTTATGACAAGGGGACAGACAAGCTGGGACGTGAGGGAAAT  
GAACAAAAGGGACGCAGGTTATTTGGGGTGAGTGGGTGGTGGGAGCCTGGAGCAAGGTGGAGGGTGCAGAGGGGC  
TGGGGTAGGGCATGTAGGAGGGAGGTGGGTGGGTGAGGTGAGTGAAGGGGTGTTGTATATTGTGTTGATGACGT  
ACGTTATTTCCATGGAAGATAGCCGCTGTGGCAGCTGTACATCACACAGCTCCCTAGGGTCTGCCGAGAAGGC  
AGGCAGTCTTTGGGTTCTGTTCTTTGTACAGTCCCCTACAAGTAAATTTTGTCTTTGAACGTTTATTAAATG  
CCAAGACCCAACCATTTCTTCCACCTGCTTGATTGTGCCAGTGTTGCTCAGGCCTCTTTCTTAGTGTTGCTTTT  
AAATCCTTCTCTTTTCTGGGTGGGAAGGCCAGGCAGGGACAGAGCAAATGACACTTCTCTTCTCTTGCCCTCC  
CTGCCTCTTTGGTGCTCTTAAAGGCCAGCAGCTGAGAACATAGCACAGGCCACGTGGTGAGGGCACCCACAGCT  
TAAAGACGCTTCCTTCTAAACACGGCGAGGTACCTCTCACTCTTCTGTCTTTGCAAACCGAGAAGAGTGGCATG  
CTTCTGGCATCCCAAGTCAGGATTTTAGCTCAGATGAGGCAGAATGAAGGGCCTCTTTACAGGCAGTTTGTGTT  
TGATTCTCTCGATCCTGGCACATCCATGATAAATAGGAGTTTTGAAGTGTGTTTATTAGGTGTTCCCTAATT  
TTACCGTAATAGGTTCATCTCAGCTTATATGAAAGTCAAGTGGGGAAGTGGGAAAGCCAAAGTCAGTCTTGAGCA  
GAGGGAGCACATTTTGTGGACCTGGTTCCACCTTTCCATTCCAAACCACCTGTTTCCCCTTCCATTAGCAGAAAC  
TCTGGGGGAACTTTGTGTCTCAGTCCTAGAATCTCCCCAAGTGAGTGAAGTGACATGATGCAGTCTTCTCATG  
GGGCACCTGAAAGAAATTAGTGTTGGGTGCTTCGATCTACCTTGCTGTGTCAGAGTTGAATATCTTTTCCCTATCA  
TGCTGCTTCTGAAAATTGAGTTTTGGAGCAAGTCTGTGAGCAAGATAAGAATCTATAGAACCAAGATGCTCATT  
TTCAGAAGAAATATGTTCAACCTGGGATCAGACTTCCATGCTCTGGGGAATCCAAGTGGTAGCACCTGTAACCT  
GTGTACTAAGTGCTTTGAAGAGAAGAGCAGGCCTCAGACACCTTTTAATTGCTTAGGAGAAACCATTGTCTCTGA  
CTGCAGGTTTTGAATAAGTTGAAGACCAGAGAAAAGTACACACTGGGCTACAAAGGAATTTGGAGATAGCCAAGGA  
ACAGGATTTCCCCTAGCAAGCTACCTTCTGTTCAAATCATGAAAAAGACTATTTCCCCTTAGAATAGGGAAGCT

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**FIGURE 120B**

TGCTATTTTAAAGCTCTTGCTAGTGCTTTTCTTTTAAAGGGAGATGTAGTAAAAGGGAAAATGTAGCTCTTAGTTTA  
CACTTCAAAGATGTGGGGTCTTTCAGAGAACTAAGAATAACAGTTTTATGTGCAGAGAGAGTTTGCCAGATCTG  
AAGCATATACCTCATTGACTAGGCTGTTACTTTGGGATAGGTTGCAGTACCAGCCACAGCCAGCAGATAGAGGAA  
AAGACACACATAAACTCGCTTCTGTGAGCGTCCACTTCTGCACTCTCTGCTCTGCTGTTACTCAGCCCCTGAGTCTG  
ACTCATCTCTGCACAACCTCTCTGTGCCATGAAGATAAGTCTTCCATGGCCAAATCGGTTCATCCGCACTGCCCTT  
GGGACTTCCGAAGTGAACCATCCACCAGAACCTTTGATTCTGCACAAGATTTCTTGCTCTGGGAACAACCCCC  
AAATGCCCTTGGGAGGAACAACATGAGCTCAGGAAGCCTCTCTTTCTTCACTTACCATTACTAACTCTCCAAGCA  
TAGAAATCCCTGGGAATTGCGAGAATAACTCCCACTATTTTAAAATTTATATTTCAGATTTGTTTCGTTTCATAAG  
ACACATCAAACAGGCCTATACAAAAGGTTTAGGAAAAGAAAACAATGGTGAGTCCCGGCCCTCTTCGAATTCACT  
GGCACCTCATGCAAGTGTAGGAAGGCACGCTGGATCGTCTATCTGATTCCAAAGCTGTCCCTTTGCCATCTCATCC  
CTTGGCCTGCCCCCAACCTGAGGATGCCCTGCCATCCCCCAACCTCCTCATATTGCCCTCTGAACCCAGATG  
GCAATCCATCCCGGTTCTCTCTGAGGGCCACGGGCTTGGGTAGTGGAAGGGTGTTTGGGAAATTGTTAAATCAG  
TTACCCGTAGTAGAGCTATTTCTTGTAATTCTAAGTTTTCTAGAAGTGGAAGGATTGTAGTCATCCTGAAAATGG  
GTTTACTTCAAAATCCCTCAGCCTTGTTCTTTCACGACTGTCTATACTGAGAGTGTTCATGTTTCCACAAAGGGCTG  
ACACCTGAGCCTGGATTTTCACTCATCCCTGAGAAGCCCTTTCCAGTAGGGTGGGCAATTCCTCAACTTCCTTGCC  
ACAAGCTTCCCAGGCTTTCTCCCCTGGAAAACCTCCAGCTTGAGTCCAGATACACTCATGGGCTGCCCTGGGCAG  
CCAGCATTCAATTGTAAGTTCCCTCTTTGAAAACCTGGTGTGTGGGTGTTTCAGTTCTGTGTCTGGTGGGTATGGACA  
GACAGTAATCTCCTGTGATCTGTGCTAGCTGTGAGGCAGCTCTGGAACGTGAAGAGCTGTTTGGTTTGAACCGTG  
AACAAAACCTGTGTTTTGAGTTTAGCTGACATTAAAGAAAAAAGTTCATCACGTGACTGTTAATGTAAACCTGGTT  
ATTAAATAACTATGAAATTAC

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**FIGURE 121**

MSYQGKKNIPRITSDRLLIKGGRIVNDDQSFYADIYMEDGLIKQIGDNLIVPGGVKTIEANGKMVIPGGIDVHTH  
FQMPYKGMITVDDFFQGTKAALAGGTTMIIDHVVPEPESSLTEAYEKREWADGKSCCDYALHVDITHWNDSVKQ  
EVQNLIKDKGVNSFMVYMAYKDLYQVSNTELYEIFTCLGELGAIAQVHAENGDI IAQEQTRMLEMGITGPEGHVL  
SRPEELEAEAVFRAITIASQTNCPLYVTKVMSKSAADLISQARKKGNVVFGEPI TASLGIDGTHYWSKNWAKAAA  
FVTSPPLSPDPTTPDYINSL LASGDLQLSGSAHCTFSTAQKAIGKDNFTAIPEGTNGVEERMSVIWDKAVATGKM  
DENQFVAVTSTNAAKIFNLYPRKGRISVGSDSDLVIWDPDAVKIVSAKNHQSAAEYNIFEGMELRGAPLVVICQG  
KIMLEDGNLHVTQGAGRFI PCSPFSDYVYKRIKARRKMADLHAVPRGMYDGPVFDLTTTPKGGTPAGSARGSPTR  
PNPPVRNLHQSGFSLSGTQVDEGVRSASKRIVAPPGGRSNITSLS

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**FIGURE 122**

CGATCAGATCGATCTAAGATGCGCGACTGTGGAACCGGAAACCACCCCTACTCCTAATCCCCCGACTACAGAAGAG  
GAGAAAACGGAATCTAATCAGGAGGTTGCTAACCAGAACACTATATTAAACATCCCCTACAGAACAGATGGGCA  
CTCTGGTTTTTTTAAAAATGATAAAAGCAAACTTGGCAAGCAAACCTGCGGCTGATCTCCAAGTTTGATACTGTT  
GAAGACTTTTGGGCTCTGTACAACCATATCCAGTTGTCTAGTAATTTAATGCCTGGCTGTGACTACTCACTTTTT  
AAGGATGGTATTGAGCCTATGTGGGAAGATGAGAAAAACAAACGGGGAGGACGATGGCTAATTACATTGAACAAA  
CAGCAGAGACGAAGTGACCTCGATCGCTTTTGGCTAGAGACACTTCTGTGCCTTATTGGAGAATCTTTTGATGAC  
TACAGTGATGATGTATGTGGCGCTGTTGTTAATGTTAGAGCTAAAGGTGATAAGATAGCAATATGGACTACTGAA  
TGTGAAAACAGAGAAGCTGTTACACATATAGGGAGGGTATACAAGGAAAGGTTAGGACTTCCTCCAAAGATAGTG  
ATTGTTTATCAGTCCCACGCAGACACAGCTACTAAGAGCGGCTCCACCACTAAAAATAGGTTTGTGTTTAAGAA  
GACACCTTCTGAGTATTCTCATAGGAGACTGCGTCAAGCAATCGAGATTGGGAGCTGAACCAAAGCCTCTTCAA  
AAAGCAGAGTGGACTGCATTTAAATTTGATTTCCATCTTAATGTTACTCAGATATAAGAGAAGTCTCATTGCGCT  
TTGTCTTGTACTTCTGTGTTTCACTTTTTTTTTTTTTTTTTTTGGCTAGAGTTTCCACTATCCCAATCAAAGAATTAC  
AGTACACATCCCCAGAATCCATAAATGTGTTCCCTGGCCCACTCTGTAATAGTTCAGTAGAATTACCATTAAATTAC  
ATACAGATTTTACCTATCCACAATAGTCAGAAAACAACCTTGGCATTCTATACCTTTACAGGAAAAAAAATTCTGT  
TGTTCCATTTTATGCAGAAGCATATTTTGCTGGTTTGAAAGATTATGATGCATACAGTTTTCTAGCAATTTTCTT  
TGTTTCTTTTACAGCATTGTCTTTGCTGTACTCTTGCTGATGGCTGCTAGATTTTAATTTATTTGTTTCCCTAC  
TTGATAATATTAGTGATTCTGATTTTCAGTTTTTCATTTGTTTTGCTTAAATTTTTTTTTTTTTTTTCTCATGTA  
ACATTGGTGAAGGATCCAGGAATATGACACAAAGGTGGAATAAACATTAATTTTGTGCATTCTTTGGTAATTTTT  
TTTGTTTTTTGTAACACAAAGCTTTGCTACAAATTTATGCATTTCAATCAAATCAGTGATCTATGTTTGTGTGA  
TTTCCTAAACATAATTGTGGATTATAAAAAATGTAACATCATAATTACATTCCTAACTAGAAATTAGTATGTCTGT  
TTTTGTATCTTTATGCTGTATTTAACACTTTGTATTACTTAGGTTATTTTGCTTTGGTTAAAAATGGCTCAAGT  
AGAAAAGCAGTCCCATTTCATATTAAGACAGTGTACAAAACGTAAATAAAATGTGTACAGTGAATTGTCTTTTAG  
ACAACCTAGATTTGTCTTTTATTTCTCCATCTTTATAGAAGGAATTTGTACTTCTTATTGCAGGCAAGTCTCTAT  
ATTATGTCCTCTTTTGTGGTGTCTTCCATGTGAACAGCATAAGTTTGGAGCACTAGTTTGATTATTATGTTTATT  
ACAATTTTAAATAAATTGAATAGGTAGTATCATATATATGGA

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**FIGURE 123**

MATVEPETTPTPNPPTTEEEKTESNQEVANPEHYIKHPLQNRWALWFFKNDKSKTWQANLRLISKFDTVEDFWAL  
YNHIQLSSNLMPGCDYSLFKDGI EPMWEDEKNKRGGRWLITL NKQQRRSDLD RFWLETLLCLIGESFDDYSDDVC  
GAVVNVRAKGDKIAIWTTECENREAVTHIGRVYKERLGLPPKIVIGYQSHADTATKSGSTTKNRFVV

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**FIGURE 124A**

ATGGGGCCTGAAACTGTCTGGGTCTGAGCTGGGGAGCGGAAGCCACTTGTCCCTCTCCCTCCCCAGGACTTCTGT  
GACTCCTGGGCCACAGAGGTCCAACCAGGGTAAGGGCCTGGGGATACCCCCTGCCTGGCCCCCTTGCCCAAAGTGA  
GCAGGGGGGGCAGGCTGGGCAGCAGCCCCCTCTTTCACCTCAACTATGGATCTCCTGCCCCCAAGCCCAAGTACA  
ATCCACTCCGGAATGAGTCTCTGTTCATCGCTGGAGGAAGGGGCTTCTGGGTCCACCCCCCGGAGGAGCTGCCTT  
CCCCATCAGCTTCATCCCTGGGGCCCATCCTGCCTCCTCTGCCTGGGGACGATAGTCCCACTACCCTGTGCTCCT  
TCTTCCCCCGGATGAGCAACCTGAGGCTGGCCAACCCGGCTGGGGGGCGCCCAGGGTCTAAGGGGGAGCCAGGAA  
GGGCAGCTGATGATGGGGAGGGGATCGATGGGGCAGCCAIGCCAGAGTCAGGCCCCCTACCCTCCTCCAGGACA  
TGAACAAGCTGAGTGGAGGCGGGCGCAGGACTCGGGTGAAGGGGGCCAGCTTGGGGGCGAGGAGTGGACCC  
GCCACGGGAGCTTTGTCAATAAGCCACGCGGGGCTGGCTGCATCCCAACGACAAAGTCATGGGACCCGGGGTTT  
CCTACTTGGTTCGGTACATGGGTGTGTGGAGGTCCTCCAGTCAATGCGTGCCTGGACTTCAACACCCGGACTC  
AGGTACCCAGGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGGTGCTAAGGGGGCGACAAGGAGGAGAAAGC  
CCTGTAGCCGCCCGCTCAGCTCTATCCTGGGGAGGAGTAACCTGAAATTTGCTGGAATGCCAATCACTCTCACC  
TCTCCACCAGCAGCCTCAACCTCATGGCCGAGACTGCAAACAGATCATCGCCAACCACCACATGCAATCTATCT  
CATTGTCATCCGGCGGGGATCCGGACACAGCCGAGTATGTGCGCTATGTTGCCAAAGACCCTGTGAATCAGAGAG  
CCTGCCACATTCTGGAGTGTCCCGAAGGGCTTGCCCAAGGATGTCATCAGCACCATTGGCCAGGCCTTCGAGTTGC  
GCTTCAAACAATACCTCAGGAACCCACCCAACTGGTCAACCCCTCATGACAGGATGGCTGGCTTTGATGGCTCAG  
CATGGGATGAGGAGGAGGAAGAGCCACCTGACCATCAGTACTATAATGACTTCCCGGGGAAGGAACCCCCCTTGG  
GGGGGGTGGTAGACATGAGGCTTCGGGAAGGAGCCGCTCCAGGGGCTGCTCGACCCACTGCACCCAATGCCCAGA  
CCCCAGCCACTTGGGAGCTACATTGCCTGTAGGACAGCCTGTTGGGGGAGATCCAGAAGTCCGCAAACAGATGC  
CACCTCCACCACCCTGTCCAGGCAGAGAGCTTTTGTATGATCCCTCCTATGTCAACGTCCAGAACCTAGACAAGG  
CCCGGCAAGCAGTGGGTGGTGTGCTGGGCCCCCAATCTGCTATCAATGGCAGTGCACCCCGGGACCTGTTTGACA  
TGAAGCCCTTCGAAGATGCTCTTCGGGTGCCTCCACCTCCCCAGTCGGTGTCCATGGCTGAGCAGCTCCGAGGGG  
AGCCCTGGTTCATGGGAAGCTGAGCCGGCGGGAGGCTGAGGCACCTGCTGCAGCTCAATGGGGACTTCTTGGTAC  
GGGAGAGCACGACCACACCTGGCCAGTATGTGCTCACTGGCTTGCAGAGTGGGCAGCCTAAGCATTGTGCTACTGG  
TGGACCTGAGGGTGTGGTTTCGGACTAAGGATCACCGCTTTGAAAGTGTGAGTACCTTATCAGCTACCACATGG  
ACAATCACTTGGCCATCATCTCTGCGGGCAGCGAACTGTGTCTACAGCAACCTGTGGAGCGGAACTGTGATCTG  
CCCTAGCGCTCTCTTCCAGAAGATGCCCTCCAATCCTTTCCACCCTATTCCCTAACTCTCGGGACCTCGTTTGGG  
AGTGTCTGTGGGCTTGGCCTTGTGTGAGAGCTGGGAGTAGCATGGACTCTGGGTTTCATATCCAGCTGAGTGAG  
AGGGTTTGAGTCAAAAGCCTGGGTGAGAATCCTGCCTCTCCCCAAACATTAATCACCAAAGTATTAATGTACAGA  
GTGGCCCCCTACCTGGGCCTTTCTGTGCCAACCTGATGCCCCCTTCCCCAAGAAGGTGAGTGCTTGTGATGAAA  
ATGTCTGTGGTGACAGGCCAGTGAACAGTCAACCTTCTGGGCAAGGGGGAACAAATCACACCTCTGGGCTTC  
AGGGTATCCCAGACCCCTCTCAACACCCGCCCCCCCCATGTTTAACTTTGTGCCTTTGACCATCTCTTAGGTCT  
AATGATATTTTATGCAAACAGTTCTTGGACCCCTGAATTCTTCAATGACAGGGATGCCAACACCTTCTTGGCTTC  
TGGGACCTGTGTTCTTGTGCTGAGCACCTCTCCGGTTTGGGTGGGATAACAGAGGCAGGAGTGGCAGCTGTCCCC  
TCTCCCTGGGGATATGCAACCCCTTAGAGATTGCCCCAGAGCCCCACTCCCGGCCAGGCGGGAGATGGACCCCTCC  
CTTGCTCAGTGCCTCCTGGCCGGGGCCCCCTCACCCCAAGGGGTCTGTATATACATTTTCATAAGGCCTGCCCTCCC  
ATGTTGCATGCCTATGTACTCTGCGCCAAAGTGCAGCCCTTCTCCTGAAGCCTCTGCCCTGCCTCCCTTTCTGG  
GAGGGCGGGGTGGGGGTGACTGAATTTGGGCCTCTTGTACAGTTAACTCTCCAGGTGGATTTTGTGGAGGTGAG  
AAAAGGGGCATTGAGACTATAAAGCAGTAGACAATCCCCACATACCATCTGTAGAGTTGGAAGTGCATTCTTTTA  
AAGTTTTATATGCATATATTTTAGGGCTGCTAGACTTACTTTTCTTCTTTTCCATTGCTTATTCTTGTAGCA  
CAAATGATAATCAATTATTACATTTTATACATCACCTTTTTGACTTTTCCAAGCCCTTTTACAGCTCTTGGCATT  
TTCCTCGCCTAGGCCTGTGAGGTAACCTGGGATCGCACCTTTTATACCAGAGACCTGAGGCAGATGAAATTTATTT  
CCATCTAGGACTAGAAAACTTGGGTCTCTTACC CGAGACTGAGAGGCAGAAAGTCAGCCCGAATGCCTGTGAGT  
TTCATGGAGGGGAAACGCAAAACCTGCAGTTCCTGAGTACCTTCTACAGGCCCGGCCAGCCTAGGCCCGGGGTG  
GCCACACCACAGCAAGCCGGCCCCCTCTTTTGGCCTTGTGGATAAGGGAGAGTTGACCGTTTTTCATCTGGCC  
TCCTTTTGTGTTTTGGATGTTTTCCACGGGTCTCACTTATACCAAAGGGGAAACTCTTCATTAAAGTCCGTATTTT  
TTCTAAAAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA  
CATTTTCTCGCCTAGGCCTGTGAGGTAACCTGGGATCGCACCTTTTATACCAGAGACCTGAGGCAGATGAAATTT

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**FIGURE 124B**

ATTTCATCTAGGACTAGAAAACTTGGGTCTCTTACCGCGAGACTGAGAGGCAGAAGTCAGCC

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**FIGURE 125**

MDLLPPKPKYNPLRNESLSSLEEGASGSTPPEELPSPSASSLGPILPPLPGDDSPITLCSFFPRMSNLRLANPAG  
GRPGSKGEPGRAADDGEGIDGAAMPESGFLPPLLQDMNKLSGGGGRTRVEGGQLGGEWTRHGSFVNKPTRGWLH  
PNDKVMGPGVSYLVRYMGCEVLQSMRALDFNTRTQVTREAI SLVCEAVPGAKGATRRRKPCSRPLSSILGRSNL  
KFAGMPITLTVSTSSLNLMAADCKQIIANHHMQSISFASGGDPDTAEYVAYVAKDPVNQRACHILECPEGLAQDV  
ISTIGQAFELRFKQYLRNPPKLVTPHDMAGFDGSAWDEEEEEPPDHQYYNDFPGKEPPLGGVVDMLREGAAPG  
AARPTAPNAQTPSHLGATLPVGQPVGGDPEVRKQMPPPPPCPGRELFDDPSYVNVQNLDKARQAVGGAGPPNPAI  
NGSAPRDLFDMKPFEDALRVPPPPQSVSMAEQLRGEPWFHGKLSRREAEALLQLNGDFLVRESTTTPGQYVLTGL  
QSGQPKHLLLVDPGVVVRTKDRFESVSHLISYHMDNHLPIISAGSELCLQQPVERKL



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**FIGURE 126**

CCAGCAGGGAGCTGGGAGCTGGGGGAAACGACGCCAGGAAAGCTATCGCGCCAGAGAGGGCGACGGGGGCTCGGG  
AAGCCTGACAGGGCTTTTGCGCACAGCTGCCGGCTGGCTGCTACCCGCCCCGCGCCAGCCCCGAGAACGCGCGAC  
CAGGCACCCAGTCCGGTCACCGCAGCGGAGAGCTCGCCGCTCGCTGCAGCGAGGCCCCGGAGCGGCCCGCAGGGA  
CCCTCCCCAGACCGCCTGGGCGCGCCGGATGTGCACTAAAATGGAACAGCCCTTCTACCACGACGACTCATACAC  
AGCTACGGGATACGGCCGGGCCCCCTGGTGGCCTCTCTCTACACGACTACAAACTCCTGAAACCGAGCCTGGCGGT  
CAACCTGGCCGACCCCTACCGGAGTCTCAAAGCGCCTGGGGCTCGCGGACCCGGCCCCAGAGGGCGGCGGTGGCGG  
CAGCTACTTTTCTGGTCAGGGCTCGGACACCGGCGCGTCTCTCAAGCTCGCCTCTTCGGAGCTGGAACGCCTGAT  
TGTCCCCAACAGCAACGGCGTGATCACGACGACGCCTACACCCCCGGGACAGTACTTTTACCCCCGCGGGGGTGG  
CAGCGGTGGAGGTGCAGGGGGCGCAGGGGGCGGCGTCACCGAGGAGCAGGAGGGCTTCGCCGACGGCTTTGTCAA  
AGCCCTGGACGATCTGCACAAGATGAACCACGTGACACCCCCAACGTGTCCCTGGGCGCTACCGGGGGGCCCCC  
GGCTGGGCCCCGGGGCGTCTACGCCGGCCCCGAGCCACCTCCCGTTTACACCAACCTCAGCAGCTACTCCCCAGC  
CTCTGCGTCCTCGGGAGGCGCGGGGGTGGCGTCGGGACCGGGAGCTCGTACCCGACGACCACCATCAGCTACCT  
CCCACACGCGCCGCCCTTCGCCGGTGGCCACCCGGCGCAGCTGGGCTTGGGCGCGGGCGCCTCCACCTTCAAGGA  
GGAACCGCAGACCGTGCCGGAGGCGCGCAGCCGGGACGCCACGCCGCCGGTGTCCCCCATCAACATGGAAGACCA  
AGAGCGCATCAAAGTGGAGCGCAAGCGGCTGCGGAACCGGCTGGCGGCCACCAAGTGCCGGAAGCGGAAGCTGGA  
GCGCATCGCGCGCCTGGAGGACAAGGTGAAGACGCTCAAGGCCGAGAACGCGGGGCTGTGAGTACCGCCGGCCT  
CCTCCGGGAGCAGGTGGCCCCAGCTCAAACAGAAGGTCATGACCCACGTGAGCAACGGCTGTCAGCTGCTGCTTGG  
GGTCAAGGGACACGCCTTCTGAACGTCCCCTGCCCTTTACGGACACCCCCTCGCTTGGACGGCTGGGCACACGC  
CTCCCACTGGGGTCCAGGGAGCAGGCGGTGGGCACCCACCTGGGACCTAGGGGCGCCGCAAACCACACTGGACT  
CCGGCCCCCTACCTGCGCCCAGTCCTTCCACCTCGACGTTTACAAGCCCCCTTCCACTTTTTTTTTGTATGT  
TTTTTTTCTGCTGGAAACAGACTCGATTATATTAATATAATATTTGTGTATTTAACAGGGAGGGGAAGAGG  
GGGCGATCGCGCGGAGCTGGCCCCGCGCCTGGTACTCAAGCCGCGGGGACATTGGGAAGGGGACCCCCGCC  
CCTGCCCTCCCCTCTCTGCACCGTACTGTGAAAAAGAAACACGCACTTAGTCTCTAAAGAGTTTATTTTAAGACG  
TGTTTGTGTTTGTGTGTTTGTCTTTTATTGAATCTATTTAAGTAAAAAAAAAATTGGTTCTTTATTAA

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**FIGURE 127**

MCTKMEQPFYHDDSYTATGYGRAPGGLSLHDYKLLKPSLAVNLADPYRSLKAPGARGPGPEGGGGGSYFSGQGS  
TGASLKLASSELERLIVPNSNGVITTTPTPPGQYFYPRGGSGGGAGGAGGGVTEEQEGFADGFVKALDDLHKMN  
HVTPPNVSLGATGGPPAGPGGVYAGPEPPPVYTNLSSYSPASASSGGAGAAVGTGSSYPTTTISYLPHAPPFAGG  
HPAQLGLGRGASTFKEEPQTVPEARSRDATPPVSPINMEDQERIKVERKRLNRRLAATKCRKRKLERIARLEDKV  
KTLKAENAGLSSTAGLLREQVAQLKQKVMTHVSNGCQLLLGVKGHAF

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**FIGURE 128**

ATTCGAACCCCGTCGCGCCCTTTGTGCGTCACGGGTGGCGGGCGCGGGAAGGGGATTGGATTGTTGCGCCTCT  
GCTCTGAAGAAAGTGCTGTCTGGCTCCAACTCCAGTTCTTTCCCTGAGCAGCGCTGGAACCTAACCCCTCCCA  
CTCTGTCACCTTCTCGATCCCGCCGGCGCTTTAGAGCCGAGTCCAGTCTTGGATCCTTCAGAGCCTCAGCCACT  
AGCTGCGATGCATGTGATCAAGCGAGATGGCCGCCAAGAACGAGTCATGTTTGACAAAATTACATCTCGAATCCA  
GAAGCTTTGTTATGGACTCAATATGGATTTTGTGATCCTGCTCAGATCACCATGAAAGTAATCCAAGGCTTGTA  
CAGTGGGGTCACCACAGTGGAACTAGATACTTTGGCTGCTGAAACAGCTGCAACCTTGACTACTAAGCACCCCTGA  
CTATGCTATCCTGGCAGCCAGGATCGCTGTCTCTAACTTGCACAAAGAAACAAAGAAAGTGTTTCAGTGATGTGAT  
GGAAGACCTCTATAACTACATAAATCCACATAATGGCAAACACTCTCCCATGGTGGCCAAGTCAACATTGGATAT  
TGTTCTGGCCAATAAAGATCGCCTGAATTCTGCTATTATCTATGACCGAGATTTCTCTTACAATTACTTCGGCTT  
TAAGACGCTAGAGCGGTCTTATTTGTTGAAGATCAATGGAAAAGTGGCTGAAAGACCACAACATATGTTGATGAG  
AGTATCTGTTGGGATCCACAAAGAAGACATTGATGCAGCAATTGAAACATATAATCTTCTTTCTGAGAGGTGGTT  
TACTCATGCTTCGCCCCTCTCTTCAATGCTGGTACCAACCGCCCACTTTCTAGCTGTTTTCTTCTGAGTAT  
GAAAGATGACAGCATTGAAGGCATTTATGACACTCTAAAGCAATGTGCATTGATTTCTAAGTCTGCTGGAGGAAT  
TGGTGTGCTGTGAGTTGTATTCTGGGCTACTGGCAGCTACATTGCTGGGACTAATGGCAATTCCAATGGCCTTGT  
ACCGATGCTGAGAGTATATAACAACACAGCTAGATATGTGGATCAAGGTGGGAACAAGCGTCTGGGGCATTTCG  
TATTTACCTGGAGCCTTGGCATTAGACATCTTTGAATTCCTTGATTTAAAGAAGAACACAGGAAAGGAAGAGCA  
GCGTGCCAGAGATCTTTTCTTTGCTCTTTGGATTCCGGATCTCTTCATGAAACGAGTGGAGACTAATCAGGACTG  
GTCTTTGATGTGTCCAAATGAGTGTCTGGTCTGGATGAGGTTTGGGGAGAGGAATTTGAGAACTATATGCAAG  
TTATGAGAAACAAGGTGCTGTCCGCAAAGTTGTAAAGCTCAGCAGCTTTGGTATGCCATCATTGAGTCTCAGAC  
GGAAACAGGCACCCCGTATATGCTCTACAAAGATTCTGTAAATCGAAAGAGCAACCAGCAGAACCTGGGAACCAT  
CAAATGCAGCAACCTGTGCACAGAAATAGTGGAGTACACCAGCAAAGATGAGGTTGCTGTTTGTAATTTGGCTTC  
CCTGGCCCTGAATATGTATGTACATCAGAACACACATACGACTTTAAGAAGTTGGCTGAAGTCACTAAAGTCGT  
TGTCGGAACTTGAATAAAATTATTGATATAAACTACTATCCTGTACCAGAGGCATGCCTATCAAATAAACGCCA  
TCGCCCCATTGGAATTGGGGTACAAGGTCTGGCAGATGCTTTTATCCTGATGAGATACCCTTTTGAGAGTGCAGA  
AGCCCAGTTACTGAATAAGCAGATCTTTGAAACTATTTATTATGGTGCTCTGGAAGCCAGCTGTGACCTTGCCAA  
GGAGCAGGGCCCATACGAAACCTATGAGGGCTCTCCAGTTAGCAAAGGAATTCCTCAGTATGATATGTGGAATGT  
TACTCCTACAGACCTATGGGACTGGAAGGTTCTCAAGGAGAAGATTGCAAAGTATGGTATAAGAAACAGTTTACT  
TATTGCCCCGATGCCTACAGCTTCCACTGCTCAGATCCTGGGGAATAATGAGTCCATTGAACCTTACACCAGCAA  
CATCTATACTCGCAGAGTCTTGTCAGGAGAATTTAGATTGTAAATCCTCACTTATTGAAAGATCTTACCGAGCG  
GGGCCTATGGCATGAAGAGATGAAAAACCAGATTATTGCATGCAATGGCTCTATTAGAGCATACCAGAAATTCC  
TGATGACCTGAAGCAACTTTATAAACTGTGTGGGAAATCTCTCAGAAAACGTTCTCAAGATGGCAGCTGAGAG  
AGGTGCTTTTATTGATCAAAGCCAATCTTTGAACATCCACATTGCTGAGCCTAACTATGGCAAACCTCACTAGTAT  
GCACTTCTACGGCTGGAAGCAGGGTTTGAAGACTGGGATGTATTATTTAAGGACAAGACCAGCAGCTAATCCAAT  
CCAGTTCCTCTAAATAAGGAGAAGCTAAAAGATAAAGAAAAGGTATCAAAAGAGGAAGAAGAGAAGGAGAGGAA  
CACAGCAGCCATGGTGTGCTCTTTGGAGAATAGAGATGAATGTCTGATGTGTGGATCCTGAGGAAAGACTTGAA  
GAGACCAGCATGTCTTCAGTAGCCAACTACTTCTTGAGCATAGATAGGTATAGTGGGTTTGCTTGAGGTGGTAA  
GGCTTTGCTGGACCCTGTTGCAGGCAAAAGGAGTAATTGATTTAAAGTACTGTTAATGATGTTAATGATTTTTTT  
TTAACTCATATATTGGGATTTTACCAAAATAATGCTTTTGAAAAAAGAAAAAAGCGATATATTGAGAA  
TCAAAGTAGAAGTTTTAGGAATGCAAATAAGTCATCTTGATACAGGGAGTGGTTAAGTAAGGTTTCATCACC  
ATTTAGCATGCTTTTCTGAAGACTTCAGTTTTGTAAAGGAGATTTAGTTTTACTGCTTTGACTGGTGGGTCTCTA  
GAAGCAAACTGAGTGATAACTCATGAGAAGTACTGATAGGACCTTTATCTGGATATGGTCCTATAGGTTATTCT  
GAAATAAAGATAAACATTTCTAAGTGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAG

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**FIGURE 129**

MHVIKRDGRQERVFDKITSRIQKLCYGLNMDFVDPAQITMKVIOGLYSGVTTVELDTLAAETAATLTTKHPDYA  
ILAARIAVSNLHKETKKVFSVDMEDLYNYINPHNGKHSPMVAKSTLDIVLANKDRLNSAI IYDRDFS YNYFGFKT  
LERSYLLKINGKVAERPQHMLMRVSVGIHKEDIDAAIETYNLLSERWFTHASPTLFNAGTNRPQLSSCFLLSMKD  
DSIEGIYDTLKQCALISKSAGGIGVAVSCIRATGSYIAGTNGNSNGLVPMLRVYNNNTARYVDQGGNKRPGAFAIY  
LEPWHL DIFEFDLKKNTGKEEQRARDLFFALWIPDLFMKRVETNQDWSLMCPNECPGLDEVWGEEFEKLYASYE  
KQGRVRKVVKAAQQLWYAIIESQTETGTPYMLYKDSCNRKSNQQNLGTIKCSNLCTEIVEYTSKDEVAVCNLASLA  
LNMYVTSEHTYDFKKLAEVTKVVVRNLNKIIDINYPVPEACLSNKRHRPIGIGVQGLADAFILMRYPFESAEAQ  
LLNKQIFETIYYGALEASCDLAKEQGPYETYEGSPVSKGILQYDMWNVPTDLWDWKVLKEKIAKYGIRNSLLIA  
PMP TASTAQILGNNE SIEPYTSNIYTRVLSGEFQIVNPHLLKDLTERGLWHEEMKNQIIACNGSIQSIPEIPDD  
LKQLYKTVWEISQKTVLKMAAERGAFIDQSQSLNIHIAEPNYGKLTSMHFYGWKQGLKTGMYYLRTRPAANPIQF  
TLNKEKLKDKEKVSKEEEEKERNTAAMVCSLENRDECLMCGS

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**FIGURE 130**

TATTTACTTCCTGCGGGTGACAGGCTGTGGTCGTCTATCTCCCTGTTGTTCTTCCCATCGGGCGAAGATGGCCCT  
GGAGACGGTGCCGAAGGACCTGCGGCATCTGCGGGCCTGTTTGCTGTGTTGCTGGTCAAGACTATAGACCAGTT  
TGAATATGATGGTTGTGACAATTGTGATGCATATCTACAAATGAAGGGTAACCGAGAGATGGTATATGACTGCAC  
TAGCTCTTCCTTTGATGGAATCATTGCGATGATGAGTCCAGAGGACAGCTGGGTCTCCAAGTGGCAGCGAGTCAG  
TAACTTTAAGCCAGGTGTATATGCGGTGTCAGTCACTGGTCGCCTGCCCCAAGGAATCGTGCGGGAGCTGAAAAG  
TCGAGGAGTGGCCTACAAATCCAGAGACACAGCTATAAAGACCTAGCAAGATGCAAGGCTGCCAGCATCTTTGCT  
CTCCACCTCCTGCCTCTGCTTATTTCTTGTTCTGGAATAAATGAACAGAACTTCAAATACTTCTACCCCTCCAA  
TTCAGACTCAGCTGACTGTTGAGAGAGCAGCACATCATTTTTATCATTTTTATCTTCTTTGGACTACAGGTGGGGTG  
GGAGGGATTTGGGTGGTGGATTAAACAGATGGAATTGAGGAGAGAGTAGGATGCTGATTTTCCTACCCGTGGCCC  
AGGTCTGTGCCTTCCCCATGCCAAGGACTCTAGGTCAAATGTCAATAAATATGAACCTCGAGAAAGTTCTGAAGG  
CCATGACACCTGCCTTGCCCTCCCTCTTCCATTCTCTTAGGCACAGTAATAGCTTATTTGCCCTATAAGAACCTTC  
CCAGAGCAGCAGAGGCCCTTCTACTCCCTCTTGACTGTCTCAGCCTCTGGGATTGCAGCCTTTGTAGTGTGCTTC  
CTTGCTTCTATCAGAGGGTGCTGATCCAGAGGCTCAGTAACCCCATCAACTTGGTGGCCCTGGTGTCTCACACT  
TGTATCCTTCTGCCCTCGAGACCTGGCACAGCAGTATCCCTTGAAGAAATCCTGAGGCTTTGTAGAGTGCTCCTT  
GACCATGTTTAATAATTCTTCCCTCCCTTGCTTGTCTATTTTCTTCTCTTCACGGCTCTTCCTATACCTTAGGCC  
AGTCTCAAGCACTCACTGGAGACCCCTGGGCCTTGGGCGACCATTGAGTCCTAGTCTCCCTGTTTGTGCCCTG  
TAGGAGGTAGGTCTTTTTCTCCTCCGGCCTAGTAGGGGACCTTGGGTAACATCCCATTTTTCGGCCAAGGTGAGT  
TGTTTTAGGATAAAAAAATTTACCACAAATTCTCATTTAAATTTCCACAGAAATCCTGTTCGTATCCCCATTTG  
ATTTCCCTAAGTTCCTTGTTCTCCCTCTAAAAAGAGAATGATTGCACCCTGCCTGTTTACCTCAGGATTGTTGTG  
ATTGTAGAAACGAAGCTATGTGAAAATTATATAAGTATTATAAAGGTGAAATACTTTTGCTCTCAAAAAAAAAA

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**FIGURE 131**

MALETVPKDLRHLRACLLCSLVKTIDQFEYDGCNCDAYLQMKGNREMVYDCTSSSFDGIIAMMSPEDSWVSKWQ  
RVSNFKPGVYAVSVTGRLPQGIVRELKSRGVAYKSRDTAICT

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**FIGURE 132**

AATTCTTCACCTCTTTTCTCAGCTCCCTGCAGC**ATGGGTGCTGGGCCCTCCTTGCTGCTCGCCGCCCTCCTGCTG**  
CTTCTCTCCGGCGACGGCGCCGTGCGCTGCGACACACCTGCCAACTGCACCTATCTTGACCTGCTGGGCACCTGG  
GTCTTCCAGGTGGGCTCCAGCGGTTCCAGCGCGATGTCAACTGCTCGGTTATGGGACCACAAGAAAAAAGTA  
GTGGTGTACCTTCAGAAGCTGGATACAGCATATGATGACCTTGGCAATTCTGGCCATTTACCATCATTTTACAAC  
CAAGGCTTTGAGATTGTGTTGAATGACTACAAGTGGTTTGCCTTTTTTAAGTATAAAGAAGAGGGCAGCAAGGTG  
ACCACTTACTGCAACGAGACAATGACTGGGTGGGTGCGATGATGTGTTGGGCCGGAAGTGGGCTTGTTTCACCGGA  
AAGAAGGTGGGAAGTGCCTCTGAGAATGTGTATGTCAACACAGCACACCTTAAGAATTCTCAGGAAAAGTATTCT  
AATAGGCTCTACAAGTATGATCACAACCTTTGTGAAAGCTATCAATGCCATTGAGAAGTCTTGGACTGCAACTACA  
TACATGGAATATGAGACTCTTACCCTGGGAGATATGATTAGGAGAAGTGGTGGCCACAGTCGAAAAATCCCAAGG  
CCCAAACCTGCACCACTGACTGCTGAAATACAGCAAAAGATTTTGCATTTGCCAACATCTTGGGACTGGAGAAAT  
GTTTCATGGTATCAATTTTGTGAGTCTGTTTCGAAACCAAGCATCCTGTGGCAGCTGCTACTCATTGTCTTCTATG  
GGTATGCTAGAAGCGAGAATCCGTATACTAACCAACAATTCTCAGACCCCAATCCTAAGCCCTCAGGAGGTTGTG  
TCTTGTAGCCAGTATGCTCAAGGCTGTGAAGGCGGCTTCCCATACCTTATTGCAGGAAAGTACGCCCAAGATTTT  
GGGCTGGTGGGAAGAAGCTTGCTTCCCCTACACAGGCACTGATTCTCCATGCAAAATGAAGGAAGACTGCTTTCGT  
TATTACTCCTCTGAGTACCACTATGTAGGAGGTTTCTATGGAGGCTGCAATGAAGCCCTGATGAAGCTTGAGTTG  
GTCCATCATGGGCCCATGGCAGTTGCTTTTGAAGTATATGATGACTTCCTCCACTACAAAAGGGGATCTACCAC  
CACACTGGTCTAAGAGACCCTTTCAACCCCTTTGAGCTGACTAATCATGCTGTTCTGCTTGTGGGCTATGGCACT  
GACTCAGCCTCTGGGATGGATTACTGGATTGTTAAAAACAGCTGGGGCACCGCTGGGGTGAGAATGGCTACTTC  
CGGATCCGCAGAGGAAGTATGAGTGTGCAATTGAGAGCATAGCAGTGGCAGCCACACCAATTCCTAAATTG**TAG**

GGTATGCCTTCCAGTATTTTATAATGATCTGCATCAGTTGTAAAGGGGAATTGGTATATTCACAGACTGTAGACT  
TTCAGCAGCAATCTCAGAAGCTTACAAATAGATTTCCATGAAGATATTTGTCTTCAGAATTAAAACTGCCCTTAA  
TTTTAATATACCTTTCAATCGGCCACTGGCCATTTTTTTCTAAGTATTCAATTAAGTGGGAATTTTCTGGAAGAT  
GGTCAGCTATGAAGTAATAGAGTTTGCTTAATCATTGTGAATTCAAACATGCTATATTTTTTAAATCAATGTGA  
AAACATAGACTTATTTTTAAATTGTACCAATCACAAGAAAAATAATGGCAATAATTATCAAACTTTTAAATAGA  
TGCTCATATTTTTAAATAAAGTTTTAAAAATAACTGC

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**FIGURE 133**

MGAGPSLLLAALLLLLSGDGAVRCDTPANCTYLDLLGTWVFQVGSSGSQRDVNC SVMGPQEKKVVVYLQKLD TAY  
DDLGN SGHFTIIYNQGFEIVLNDYKWF AFFKYKEEGSKVTTYCNETMTGWVHDVLGRNWACFTGKKVGTASENVY  
VNTAHLKNSQEKYSNRLYKYDHN FVKAINAIQKSWTATTYMEYETLT LGDMIRRS GGHSRKIPRKPAPLTAEIQ  
QKILHLPTSWDWRNVHGINFVSPVRNQASCGSCYSFASMGMLEARIRILTNN SQTPILSPQEVVSCS QYAQGCEG  
GFPYLIAGKYAQDFGLVEEACFPYTGT DSPCKMKEDCFRYY SSEYHYVGGFYGGCNEALMKLELVHHGPM AFAFE  
VYDDFLHYKKGIYHHTGLRDPFNP FELTNHAVLLVGYGTD SASGMDYWIVKNSWGTGWGENGYFRIRRG TDECAI  
ESIAVAATPIPKL



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**FIGURE 134**

TCTGGGCGCGCGCGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCCGTGTCCCGCCCGACCCGCGCCCGCGATGC  
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCCGCGG  
CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCTCTCTCTCTCTCCGGGAACCCGCTCGTGTACCTGGACG  
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA  
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT  
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGGAAGTCCATCTACGGAAGCCGCTTTCCTG  
ACGAGAACTTTTACACTGAAGCACGTGGGGCCAGGTGTCTGTCCATGGCTAATGCTGGTCCCTAACACCAACGGCT  
CCCAGTTCTTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTTCGGTACGTCAAAGAGG  
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTTCATCACAG  
ACTGTGGCCAGTTGAGCTTAATCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG  
GCCGCGTTGGGCTGTGAGCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTACAGTGTGCCTGAGGAA  
GGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCCTTCCTCAGGACCTCA  
TTTCTGGGCATCTTTGTGGACATGATGTACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCAGCCAGATTC  
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAGTCTTTTCCTTGACCAAGGGGGACAG  
TCAGTTTTGCAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA  
CTAGAAGTGAACTGCAACACTAACTTCCCCGTGCTGTGGTGACCTGAGTTGGTGACACAGGCCACAGACCCC  
AGAGCTTGGCTTTTGAAACACAACCTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG  
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA  
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC  
GGAGGGAAGCATTTCTGCTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG  
CATAAAACATTTCTGGAACATGGATTTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA  
AAAAAAAAAAAAAAAAAA

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**FIGURE 135**

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA  
ENFRALCTGEKGFGYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN  
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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**FIGURE 136**

TCTGGGCGCGCGCGACGTCAGTTTGTGTTCTCTCCCGCCCGTGTCCCGCCCGACCCGCGCCCGCG**ATGC**  
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCGCGG  
CCCGCGCTGCGCAAGGGCTCCGGCGACCCGTCTCTCTCTCTCTCTCCGGGAACCCGCTCGTGTACCTGGACG  
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA  
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT  
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG  
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCTGTCCATGGCTAATGCTGGTTCCTAACCAACGGCT  
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGGTCACGTCAAAGAGG  
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTTCATCACAG  
ACTGTGGCCAGTTGAGCT**TAA**TCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG  
GCCGCGTTGGGCTGTCAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA  
GGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCTTCCTCACGACCTCA  
TTTCTGGGCATCTTTGTGGACATGATGTACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCAGCCAGATTC  
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG  
TCAGTTTTGCAAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA  
CTAGAAGTGAACTGCAACACTAACTTCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCC  
AGAGCTTGGCTTTTGAAACACAACCTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCTGGTTACTG  
TGAAGCCTGTTGGTTTGTGCTGCTGTCGTTTTTGGAGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA  
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC  
GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG  
CATAAAACATTTCTGGAACATGGATTTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 137**

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA  
ENFRALCTGEKGFYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN  
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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**FIGURE 138A**

GCCTGGGAGGTGCGTCAGATCCGAGCTCGCCATCCAGTTTCCTCTCCACTAGTCCCCCAGTTGGAGATCTGGGA  
CCAACAAGGCACCAATGGCGCAGAAGGGCCAACCTCAGTGACGATGAGAAGTTCCTCTTTGTGGACAAAACTTCAT  
CAACAGCCCAGTGGCCCAGGCTGACTGGGCCGCCAAGAGACTCGTCTGGGTCCCCTCGGAGAAGCAGGGCTTCGA  
GGCAGCCAGCATTAAAGGAGGAGAAGGGGGATGAGGTGGTTGTGGAGCTGGTGGAGAATGGCAAGAAGGTCACGGT  
TGGGAAAGATGACATCCAGAAGATGAACCCACCCAAGTTCTCCAAGGTGGAGGACATGGCGGAGCTGACGTGCCT  
CAACGAAGCCTCCGTGCTACACAACCTGAGGGAGCGGTACTTCTCAGGGCTAATATATACGTACTCTGGCCTCTT  
CTGCGTGGTGGTCAACCCCTATAAACACCTGCCCATCTACTCGGAGAAGATCGTCGACATGTACAAGGGCAAGAA  
GAGGCACGAGATGCCGCCTCACATCTACGCCATCGCAGACACGGCCTACCGGAGCATGCTTCAAGATCGGGAGGA  
CCAGTCCATTCTATGCACAGGCGAGTCTGGAGCCGGGAAAACCGAAAACACCAAGAAGGTCATTTCAGTACCTGGC  
CGTGGTGGCCTCCTCCACAAGGGCAAGAAAGACACAAGTATCACGGGAGAGCTGGAAAAGCAGCTTCTACAAGC  
AAACCCGATTCTGGAGGCTTTTCGGCAACGCCAAAACAGTGAAGAACGACAACCTCCTCAGATTTCGGCAAATTCAT  
CCGCATCAACTTCGACGTCACGGGTTACATCGTGGGAGCCAACATTGAGACCTATCTGCTAGAAAAATCACGGGC  
AATTCGCCAAGCCAGAGACGAGAGGACATTCCACATCTTTTACTACATGATTGCTGGAGCCAAGGAGAAGATGAG  
AAGTGAAGTGTCTTTTGGAGGGCTTCAACAACCTACACCTTCTCTCCAATGGCTTTGTGCCCATCCCAGCAGCCCCA  
GGATGATGAGATGTTCCAGGAAACCGTGGAGGCCATGGCAATCATGGGTTTCAGCGAGGAGGAGCAGCTATCCAT  
ATTGAAGGTGGTATCATCGGTCTGCAGCTTGGAAATATCGTCTTCAAGAAGGAAAGAAACACAGACCAGGCGTC  
CATGCCAGATAACACAGCTGCTCAGAAAGTTTGCCACCTCATGGGAATTAATGTGACAGATTTTACCAGATCCAT  
CCTCACTCCTCGTATCAAGGTTGGGCGAGATGTGGTACAGAAAAGCTCAGACAAAAGAACAGGCTGACTTTGCTGT  
AGAGGCTTTGGCCAAGGCAACATATGAGCGCCTTTTCCGCTGGATACTCACC CGCGTGAACAAAGCCCTGGACAA  
GACCCATCGGCAAGGGGCTTCCTTCTGGGGATCCTGGATATAGCTGGATTGAGATCTTTGAGGTGAAGTCTCTT  
CGAGCAGCTGTGCATCAACTACACCAACGAGAAGCTGCAGCAGCTCTTCAACCACACCATGTTTCATCCTGGAGCA  
GGAGGAGTACCAGCGCAGGGGCATCGAGTGGAACTTCATCGACTTTGGGCTGGACCTACAGCCCTGCATCGAGCT  
CATCGAGCGACCGAACAACCCCTCCAGGTGTGCTGGCCCTGCTGGACGAGGAATGCTGGTTCCCCAAAGCCACGGA  
CAAGTCTTTCTGTTGAGAAGCTGTGCACGGAGCAGGGCAGCCACCCCAAGTTCAGAAAGCCCAAGCAGCTCAAGGA  
CAAGACTGAGTTCTCCATCATCCATTATGCTGGGAAGGTGGACTATAATGCGAGTGCCTGGCTGACCAAGAATAT  
GGACCCGCTGAATGACAACGTGACTTCCCTGCTCAATGCCTCCTCCGACAAGTTTGTGGCCGACCTGTGGAAGGA  
CGTGGACCGCATCGTGGGCCTGGACCAGATGGCCAAGATGACGGAGAGCTCGCTGCCAGCGCCTCCAAGACCAA  
GAAGGGCATGTTCCGCACAGTGGGGCAGCTGTACAAGGAGCAGCTGGGCAAGCTGATGACCACGCTACGCAACAC  
CACGCCCCAAGTTCTGTCGCTGCATCATCCCCAACACGAGAAGAGGTCCGGCAAGCTGGATGCGTTCCTGGTGCT  
GGAGCAGCTGCGGTGCAATGGGGTGCTGGAAGGCATTGCGATCTGCCGGCAGGGCTTCCCCAACCGGATCGTCTT  
CCAGGAGTTCGGCCAACGCTACGAGATCCTGGCGGCGAATGCCATCCCCAAAGGCTTCATGGACGGGAAGCAGGC  
CTGCATTCTCATGATCAAAGCCCTGGAAGTTGACCCCAAGTTATACAGGATAGGGCAGAGCAAAATCTTCTTCG  
AACTGGCGTCTTGGCCACCTAGAGGAGGAGCGAGATTTGAAGATCACCGATGTCATCATGGCCTTCCAGGCGAT  
GTGTGCTGGCTACTTGGCCAGAAAGGCTTTTGCCAAGAGGAGCAGCAGCTGACCGCCATGAAGGTGATTTCAGAG  
GAACTGCGCCGCTACCTCAAGCTGCGGAAGTGGCAGTGGTGGAGGCTTTTACCAAAGTGAAGCCACTGCTGCA  
GGTGACACGGCAGGAGGAGGAGATGCAGGCCAAGGAGGATGAACTGCAGAAGACCAAGGAGCGGCAGCAGAAGGC  
AGAGAATGAGCTTAAGGAGCTGGAACAGAAGCACTCGCAGCTGACCGAGGAGAAGAACCTGCTACAGGAACAGCT  
GCAGGCAGAGACAGAGCTGTATGCAGAGGCTGAGGAGATGCGGGTGCGGCTGGCGGCCAAGAAGCAGGAGCTGGA  
GGAGATACTGCATGAGATGGAGGCCCGCTGGAGGAGGAGGAAGACAGGGGCCAGCAGCTACAGGCTGAAAGGAA  
GAAGATGGCCAGCAGATGCTGGACCTTGAAGAACAGCTGGAGGAGGAGGAAGCTGCCAGGCAGAAGCTGCAACT  
TGAGAAGGTACAGGCTGAGGCCAAGATCAAGAACTGGAGGATGAGATCCTGGTTCATGGATGATCAGAACATAA  
ACTATCAAAAGAACGAAAACCTTGGAGGAGAGGATTAGTGACTTAACGACAAATCTTGCAAGAGGGAAGAAAA  
GGCCAAGAATCTTACCAAGCTGAAAAACAAGCATGAATCTATGATTTTCAGAACTGGAAGTGGCGCTAAAGAAGGA  
AGAGAAGAGCCGACAGGAGCTGGAGAAGCTGAAACGGAAGCTGGAGGGTGATGCCAGCGACTTCCACGAGCAGAT  
CGCTGACCTCCAGGCGCAGATCGCAGAGCTCAAGATGCAGCTGGCCAAGAAGGAGGAGGAGCTGCAGGCGGCCCT  
GGCCAGGCTTGACGATGAAATCGCTCAGAAGAACAATGCCCTGAAGAAGATCCGGGAGCTGGAGGGCCACATCTC  
AGACCTCCAGGAGGACCTGGACTCAGAGCGGGGCCAGGAACAAGGCTGAAAAGCAGAAGCGAGACCTCGGCGA  
GGAGCTGGAGGCCCTAAAGACAGAGCTGGAAGACACACTGGACAGCACAGCCACTCAGCAGGAGCTCAGGGCCAA

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**FIGURE 138B**

GAGGGAGCAGGAGGTGACGGTGCTGAAGAAGGCCCTGGATGAAGAGACGCGGTCCCATGAGGCTCAGGTCCAGGA  
GATGAGGCAGAAAACACGCACAGGCGGTGGAGGAGCTCACAGAGCAGCTTGAGCAGTTCAAGAGGGCCAAGGCGAA  
CCTAGACAAGAATAAGCAGACGCTGGAGAAAGAGAACGCAGACCTGGCCGGGGAGCTGCGGGTCTTGGGCCAGGC  
CAAGCAGGAGGTGGAACATAAGAAGAAGAAGCTGGAGGCGCAGGTGCAGGAGCTGCAGTCCAAGTGCAGCGATGG  
GGAGCGGGCCCCGGGCGGAGCTCAATGACAAAGTCCACAAGCTGCAGAATGAAGTTGAGAGCGTCACAGGGATGCT  
TAACGAGGCCCGAGGGGAAGGCCATTAAGCTGGCCAAGGACGTGGCGTCCCTCAGTCCCAGCTCCAGGACACCCA  
GGAGCTGCTTCAAGAAGAAACCCGGCAGAAGCTCAACGTGTCTACGAAGCTGCGCCAGCTGGAGGAGGAGCGGAA  
CAGCCTGCAAGACCAGCTGGACGAGGAGATGGAGGCCAAGCAGAACCTGGAGCGCCACATCTCCACTCTCAACAT  
CCAGCTCTCCGACTCGAAGAAGAAGCTGCAGGACTTTGCCAGCACCGTGGAAGCTCTGGAAGAGGGGAAGAAGAG  
GTTCCAGAAGGAGATCGAGAACCTCACCCAGCAGTACGAGGAGAAGGCGGCCGCTTATGATAAACTGGAAAAGAC  
CAAGAACAGGCTTCAGCAGGAGCTGGACGACCTGGTTGTTGATTGGACAACAGCGGCAACTCGTGTCCAACCT  
GGAAAAGAAGCAGAGGAAATTTGATCAGTTGTTAGCCGAGGAGAAAAACATCTCTTCCAAATACGCGGATGAGAG  
GGACAGAGCTGAGGCAGAAGCCAGGGAGAAGGAAACCAAGGCCCTGTCCCTGGCTCGGGCCCTTGAAGAGGCCTT  
GGAAGCCAAAGAGGAACTCGAGCGGACCAACAAAATGCTCAAAGCCGAAATGGAAGACCTGGTCAGCTCCAAGGA  
TGACGTGGGCAAGAACGTCCATGAGCTGGAGAAGTCCAAGCGGGCCCTGGAGACCCAGATGGAGGAGATGAAGAC  
GCAGCTGGAAGAGCTGGAGGACGAGCTGCAAGCCACGAGGACGCCAAACTGCGGCTGGAAGTCAACATGCAGGC  
GCTCAAGGGCCAGTTGAAAAGGGATCTCCAAGCCCGGGACGAGCAGAATGAGGAGAAGAGGAGGCAACTGCAGAG  
ACAGCTTACGAGTATGAGACGGAACCTGGAAGACGAGCGAAAGCAACGTGCCCTGGCAGCTGCAGCAAAGAAGAA  
GCTGGAAGGGGACCTGAAAGACCTGGAGCTTCAGGCCGACTCTGCCATCAAGGGGAGGGAGGAAGCCATCAAGCA  
GCTACGCAAACCTGCAGGCTCAGATGAAGGACTTTCAAAGAGAGCTGGAAGATGCCCGTGCTCCAGAGATGAGAT  
CTTTGCCACAGCCAAAAGAGAATGAGAAGAAAGCCAAGAGCTTGAAGCAGACCTCATGCAGCTACAAGAGGACCT  
CGCCGCCGCTGAGAGGGCTCGCAAAACAAGCGGACCTCGAGAAGGAGGAACTGGCAGAGGAGCTGGCCAGTAGCCT  
GTCGGGAAGGAACGCACTCCAGGACGAGAAGCGCCGCTGGAGGCCCGGATCGCCAGCTGGAGGAGGAGCTGGA  
GGAGGAGCAGGGCAACATGGAGGCCATGAGCGACCGGGTCCGCAAAGCCACACAGCAGGCCGAGCAGCTCAGCAA  
CGAGCTGGCCACAGAGCGCAGCACGGCCAGAAGAATGAGAGTGCCCGGCAGCAGCTCGAGCGGCAGAACAAGGA  
GCTCCGGAGCAAGCTCCACGAGATGGAGGGGGCCGTCAAGTCCAAGTTCAAGTCCACCATCGCGGCGCTGGAGGC  
CAAGATTGCACAGCTGGAGGAGCAGGTGAGCAGGAGGCCAGAGAGAAACAGGCGGCCACCAAGTCGCTGAAGCA  
GAAAGACAAGAAGCTGAAGGAAATCTTGCTGAGGTGGAGGACGAGCGCAAGATGGCCGAGCAGTACAAGGAGCA  
GGCAGAGAAAGGCAATGCCAGGGTCAAGCAGCTCAAGAGGCAGCTGGAGGAGGCAGAGGAGGAGTCCCAGCGCAT  
CAACGCCAACCAGGAAGCTGCAGCGGGAGCTGGATGAGGCCACGGAGAGCAACGAGGCCATGGGCCGCGAGGT  
GAACGCACTCAAGAGCAAGCTCAGGCGAGGAAACGAGACCTCTTTCGTTCTTCTAGAAAGTCTGGAGGACGTAG  
AGTTATTGAAAATGCAGATGGTTCTGAGGAGGAAACGGACACTCGAGACGCAGACTTCAATGGAACCAAGGCCAG  
TGAATAAGCAACTTTCTACAGTTTTGCACCACGGCAAGAAAACCAAAACCAAAACAAACAAAAAAACCC  
AACAACAACCCAGAACAAGCAAAACCCAGCAGACTGTACTTAGCATTGTCTAAATCCATTCTCAAATTCCAAT  
ATCACAGACACCCCTCACACAAGGAATATAAAAACCAACCCCTCCAGCCTGGGCAACGTAGTAAAACCTCATCT  
ATACAAGAATTTAAAAATAAGCTGGGCGTGGTGGTACACACCTGTGGTCCCAGCTACTAGGGAGGCTGAGCCAGG  
AAGAACGCTCCAGCCCAGGACTTCGAGGCTGCAATGAGCTATAATTGCATCATTGCACTCCAGCCTGGGCAACAG  
AGACCCTGTCTCAACCAACCAACCAACCAACCCCTACTACCCCTGTATTCAAGGTAAAAATTGAAGTTTGTAT  
GATGTAAGAGATGAGAAAAACCAACAGGAAACACAGACACATCTCCAGTTCTATCAATGGATTGTGCAGACAC  
TGAGTTTTTAGAAAAACATATCCACGGTAACCGGTCCCTGGCAATTCTGTTTACATGAAATGGGGAGAAAGTCAC  
CGAAATGGGTGCCGCCGGCCCCCACTCCCAATTCAATCCCTAACCTGCAAACCTTTCCAACCTTCTACGTCAGGC  
CTTTGAGAATTCTTTCCCCCTCTCCTGGTTTCCACACCTCAGACACGCACAGTTTACCAAGTGCCTTCTGTAGTC  
ACATGAATTGAAAAGGAGACGCTGCTCCACGGAGGGGAGCAGGAATGCTGCACTGTTTACACCCTGACTGTGCT  
TAAAAACACTTTCACTAATAAATGGTTATAATCAC

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**FIGURE 139**

MAQKGQLSDDEKFLFVDKNF INSPVAQADWAAKRLVWVPSEKQGFEEAASIKEEKGDEVVVELVENGKKVTVGKDD  
IQKMNPPKFSKVEDMAELTCLNEASVLHNLRRERYFSGLIYTYSGLFCVVVNPYKHLPIYSEKIVDMYKGKKRHEM  
PPHIYAIADTAYRSMQLDREDQSILCTGESGAGKTENTKKVIQYLAVVASSHKGKKDTSITGELEKQLLQANPIL  
EAFGNAKTVKNDNSSRFGKFIRINFVDVTGYIVGANIETYLLEKSRAIRQARDERTFHIFYYMIAGAKEKMRSDLL  
LEGFNNTYFLSNGFVPIPAAQDDEMFOETVEAMAIMGFSEEEQLSILKVSSVLQLGNIYFKKERNTDQASMPDN  
TAAQKVCHLMGINVTDFTRSILTPRIKVGRDVVQKAQTKEQADFAVEALAKATYERLFRWILTRVNKALDKTHRQ  
GASFLGILDIAGFEIFEVNSFEQLCINYTNEKLQQLFNHTMFILEQEYQREGIEWNFIDFGLDLQPCIELIERP  
NNPPGVLALLDEECWFPKATDKSFVEKLCTEQGSHPKFQPKQLKDKTEFSIIHYAGKVDYNASAWLTKNMDPLN  
DNVTSLLNASSDKFVADLWKDVDRIVGLDQMAKMTESLPSASKTKKGMFRTVGQLYKEQLGKLMTTLRNTTPNF  
VRCIIPNHEKRSGKLDALFLVLEQLRCNGVLEGIRICRQGFPNRIVFQEFRQRYEILAANAIPKGFMDGKQACILM  
IKALELDPNLYRIGQSKIFFRTGVLAHLEEEERDLKITDVIMAFQAMCRGYLARKAFAKRQQQLTAMKVIQRNCAA  
YLKLNRNWQWRFLFTKVKPLLVQVTRQEEEMQAKEDDELQKTKERQQAENELKELEQKHSQLTEEKNLLQEQLQAE  
ELYAAEEMRVRLAAKKQELEEILHEMEARLEEEEDRGQQLQAERKKMAQQMLDLEEQLEEEEAAARQKLQLEKVT  
AEAKIKKLEDEILVMDDQNNKLSKERKLLERI SDLTTLNLAEEEEKAKNLTKLKNKHESMISELEVRLKKEEKS  
QELEKLKRKLEGDASDFHEQIADLQAIQIAELKMQAKKEEELQAALARLDDEIAQKNNALKKIRELEGHISDLQE  
DLDSERAARNKAQKQKRDLEGELEALKTELEDTLSTATQQELRAKREQEVTVLKKALDEETRSHEAQVQEMRQK  
HAQAVEELTEQLEQFKRANLNDKNQKQTELEKENADLAGELRVLGQAKQEVHKKKKLEAQVQELQSKCSDGERAR  
AELNDKVHKLQNEVESVTGMLNEAEGKAIKLAKDVASLSSQLQDTQELLQEETRQKLNSTKLRLQLEEERNLQD  
QLDEEMEAQONLERHISTLNIQLSDSKKKLQDFASTVEALEEGKKRFQKEIENLTQQYEEKAAAYDKLEKTKNRL  
QQELDDLVDLDNRQLVSNLEKKQKQKFDQLLAEKNISSKYADERDRAEAEAREKETKALSLARALEEAEAKE  
ELERTNKMLKAEMEDLVSSKDDVGKNVHELEKSKRALETQMEEMKTQLEEELEDELOATEDAKLRLEVNMQALKGQ  
FERDLQARDEQNEEKRRQLQRQLHEYETELEDERKQALAAAANKKLEGDLKDLELQADSAIKGREEAIKQLRKL  
QAQMKDFQRELEDARASRDEIFATAKENEKKAQSLEADLMQLQEDLAAERARKQADLEKEELAEELASSLSGRN  
ALQDEKRRLEARIAQLEEELEEEQGNMEAMSDRVRKATQQAQELSNEATERSTAQKNESARQQLERQNKELRSK  
LHEMEGAVKSKFKSTIAALEAKIAQLEEQVEQEAQEAQATKSLKQKDKKLKEILLQVEDERKMAEQYKEQAEKG  
NARVKQLKRQLEEAEEESQRINANRRKLQRELDEATESNEAMGREVNALSKSLRRGNETSFPVPSRRSGGRRVIEN  
ADGSEETDTRDADFNGTKASE

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**FIGURE 140**

CCTTTGGACGCGCGCCTCGGTTCCGAACGCAGCGGACGGCGCCTCAGGCAGCGCGGCGGACAGCCCGTCTCCGG  
CGCGCCGCGAGCCTCGGAGGACCCTAGCGACGGTCGTGGCGTAAGACCGGGGGGACGCGGCGGTAGCGGCGGCCG  
TTGCGATTGATTGCGCTGGTTGCCTGCGGCGTCCACTTCCTTGGCCGCCCTTGCTACACTGGCTGATTGTTGTGC  
AGCCGCGGCCATGTCTGTGAGCGAGATCTTCGTGGAGCTGCAGGGCTTTTTGGCTGCCGAGCAGGACATCCGAGA  
GGAAATCAGAAAAGTTGTACAGAGTTTAGAACAAACAGCTCGAGAGATTTTAACTCTACTGCAAGGGGTCCATCA  
GGGTGCTGGGTTTCAGGACATTCCAAAGAGGTGTTGAAAGCTCGAGAACATTTTGGTACAGTAAAAACACATCT  
AACATCTTTGAAGACCAAATTTCTGCTGAACAGTATTACAGATTTTCATGAGCACTGGAGGTTTTGTGTTGCAGCG  
CTTGGTCTTCTTGGCAGCATTGTTGTGTATTTGGAAACAGAAACACTAGTGACTCGAGAAGCAGTTACAGAAAT  
TCTTGGCATTGAGCCAGATCGGGAGAAAGGATTTTCATCTGGATGTAGAAGATTATCTCTCAGGAGTTCTAATTCT  
TGCCAGTGAAGTGTGAGGCTGTCTGTCAACAGCGTGACTGCTGGAGACTACTCCCAGCCCTCCACATCTCCAC  
CTTCATCAATGAGCTGGATTCCGGTTTTTCGCTTCTCAACCTGAAAAATGACTCCCTGAGGAAGCGCTACGACGG  
ATTGAAATATGACGTGAAGAAAGTAGAGGAAGTGGTCTATGATCTCTCCATCCGGGGCTTTAATAAGGAGACGGC  
AGCAGCTTGTGTTGAAAAATAGGAGGCTCTCCTTGCTCCTGGCCTTGCTGACCTCAGCGGTTGCCAGGAAGGGGT  
GAGCACAGAGTGCCCTCTTACGGTAGTTAGGATGCTCAGTTGCTAAACACTGCGCTTTATTTTCTTAACCAGTTGT  
GGTGTGAGTATCAGAATTGAAACACTTTTTTGGGGGTAAAAATATAGCCTTTACATGGACAGAATTTTTTTTGT  
TGTTTCAGTGAATATGCCTGTAATTCAGTGTATTTCACTCCGTCAGAAAGTGTAATGTTAGTTTCTTGGTAAA  
GTCCTTTTCTTGCTTACCTTGACTGTTGATGTACTGATTGAGAAGTTCATTGTCTCGTTTGTGATTCTTCCAGAT  
GTGATGCTTGATATTTTCTATATGCGAGTTAGCCATCCACACCAGGCATAGCCTGGATACAGTATAAAAAATAGA  
TAATTA AAAAGATGGTTGCCAAGCAAGGAAAACCTATTTTATATTTTCCCTTCCTTATTTTAAGCATTGTGAGTA  
AATCAGATGTTGAATCTTTTGGCAAGGGAATTATAGCTGCAGGTTCTCTCTCACTGCCATCAAACGTAAAAGA  
TTAAACTGCGAAGTCAAGCTCAACAGATTATTTTGGAAAGTTTTTGTATTAAGGGATTTAGTAACATCATTGTT  
TTTCCACCAGGCAGGAGTAGGGCTTAGTGTTTTAAACACCTCTGCTTCTGATGTTGCCTTAATATTCTGCTA  
TTGCAGCAATTA AAAATTGTCTTCATGTACATTTGGAATAACACGTGATGTGATATATTCCTAAACTATGAAAC  
CTTTTCTTAGTAGTCAGCTAGATCATTGTTCTGGGAGTATAAAGCCACCCACGTAAGTTAATAAGCAAAATCC  
TGACTATTATGTTGTTAGAGAAAAATGCTTTGCTTTGTCTGGAAGAAAGATAAAATAGTGAATTATAAATAAGTC  
AGGCCGGGCGTGGTGGCTCACACCTGTAATCCCAGCACACTGGGAGGCCGAGGCAGGGGGACTGCTTGAGCTCAG  
GAGTTCGAGACCAGCCTGGGCAACAAAGTGAGACTCCATCTCTATATAAAAAACAAAACCACGAAAGCACACACA  
AAATAAATCAGTGGGATTTGGTAATGTGTTTTAGAGTAAGAAATTTCAAGTTGTTGGTGACTATCCCAACAGTCA  
TGTTTTAAATGTACAGTTTGGGGCAAGTCATGTAAATACTGTTGGTGGTCTTCCCCACAGCCCCAATTTTCAGG  
TAGTACTAAGAGTATGTGCCAGGAACTCTTGCTATTGAATTGAGATGATTAAATGGTGACTTAATCCGTAGTT  
ATTTTGCACCCACTGAAAGGAAAGTGCTTTCCAGAATAATATGAAGTATCTAAAAGTGTCACCTTTTCTTGCTG  
ATCAACAATTTGGGCTTCCTGTTTGTACAAGGGGCCATTTGGCATACTTTTCACAGCTTTTATCAGGCCAAGTTA  
AAGGCTGACTACATTTTTTCATCATGAGGAAAGCAGTTGAAATGAGGCATGAGTTACTGTGCATTGGGATTTTAG  
AACAATTTTCTTGACAGCTCTTTTTGTGAAGTTAGGTTCTTAAAAGTGCCCATGATGGTCACTTAAATGTGC  
AGTAATAGCACTGCCAGGATCAAGCATGAAAGGCTTTTAAATTAGATCATCCACAGACAATACGTTTGATAATA  
GTTTTTCTTTTAACTCTTTAAGTATTGATTCTGCTTGAGAATATTGAAGTACTTGCCAGAAGTTGTGGATTTT  
AGTTTTAAACAAATGCTATTAAAGTGGAAGACACACTCTGGTCTTGGAATTCATTTGAGGATTTAGAAGTGTC  
TGTTTTAACTATTTCAGTTGTGTTTGTGCTGGCTTGTGTAAGCAATAAAATTTTTTGGTCTTTTTGTAAAGT  
GAGTGTGCTGCTGTAAGAAATCTCCCATGTGCATAACAAATCTGAATATTTTGGAGCTAAAGAAGACCGGGG  
TGACAAGCAGATACTGCTGTGTAATGGTTACACTAACCAAAAGACACCAGCCACTCAGAGTTCTATACTGTAAAG  
CGCAGATAACATTTGTGTGTTATACCTTGATTGGGGAATTAAAAGTCATTTAACTGAAGATGTTGAGAAACCTGG  
GCTCTGGTTTTAGTATACCGGAATTACTTTTTTCCAATTTTAGAAAATCAAGCAGGTTAGAGAAAATAGAGATGA  
ATTAGGGGACACTGTCTTATGGATTCATTTATAAGAAGAGAACCAGCCATATACACTGGGGAGATTGGCCACAT  
CTTAAACTTGAATAATAGTATGAGTAATGCTTAAGGGAGTTAATAGAGAAGGAAAGCTTTGGCAGTGTTTTGAG  
AACTTAAGTGCTAAAGAGATGAGACAAACATGCAGGTCGCTACTGGCATAGTTTCATAATTGTGTACTCGGAAA  
TTAAAGTTTGCTTGTCTTGGTCTGGATTAA



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**FIGURE 141**

MSVSEIFVELQGFLAAEQDIREEIRKVVQSLEQTAREILTLLQGVHQGAGFQDIPKRCLKAREHFGTVKTHLTSL  
KTKFPAEQYYRFHEHWRFVLQRLVFLAAFVVYLETETLVTREAVTEILGIEPDREKGFHLDVEDYLSGVLILASE  
LSRLSVNSVTAGDYSRPLHISTFINELDSGFRLNLKNDLSLRKRYDGLKYDVKKVEEVVYDLSIRGFNKETAAAC  
VEK

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**FIGURE 142**

[illegible]

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**FIGURE 143**

MAGLPRIIKETQRLLAEPVPGIKAEPDESNARYFHVVIAGPQDSPFEGGTFKLELFLPEEYPMAAPKVRFMTKI  
YHPNVDKLGRICLDILKDKWSPALQIRTVLLSIQALLSAPNPDDPLANDVAEQWKTNEAQAIETARAWTRLYAMN  
NI

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**FIGURE 144**

ATGCCTGTCTTCATCTTGAAAGAAAAGCTCCAGGTCCCTTCTCCAGCCACCCAGCCCCAAGATGGTGATGCTGCT  
GCTGCTGCTTTCCGCACTGGCTGGCCTCTTCGGTGCGGCAGAGGGACAAGCATTTCATCTTGGGAAGTGCCCCAA  
TCCTCCGGTGCAGGAGAATTTTGACGTGAATAAGTATCTCGGAAGATGGTACGAAATTGAGAAGATCCCAACAAC  
CTTTGAGAATGGACGCTGCATCCAGGCCAACTACTCACTAATGGAAAACGGAAAGATCAAAGTGTTAAACCAGGA  
GTTGAGAGCTGATGGAAGTGTGAATCAAATCGAAGGTGAAGCCACCCCAGTTAACCTCACAGAGCCTGCCAAGCT  
GGAAGTTAAGTTTTCTGGTTTATGCCATCGGCACCGTACTGGATCCTGGCCACCGACTATGAGAAGTATGCCCT  
CGTGTATTCCTGTACCTGCATCATCCAACTTTTTCACGTGGATTTTGCTTGGATCTTGGCAAGAAACCTAATCT  
CCCTCCAGAAACAGTGGACTCTCTAAAAAATATCCTGACTTCTAATAACATTGATGTCAAGAAAATGACGGTCAC  
AGACCAGGTGAAGTGGCCCAAGCTCTCGTAACCAGGTTCTACAGGGAGGCTGCACCCACTCCATGTTACTTCTGC  
TTCGCTTTCCCCTACCCACCCCCCCCCATAAAGACAAACCAATCAACCACGACAAAGGAAGTTGACCTAAACAT  
GTAACCATGCCCTACCTGTTACCTTGCTAGCTGCAAAATAAACTTGTGCTGACCTGC

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**FIGURE 145**

MVMLLLLLSALAGLFGAAEGQAFHLGKCPNPPVQENFDVNKYLGRWYEIEKIPTTFENGRCIQANYSLMENGKIK  
VLNQELRADGTVNQIEGEATPVNLTEPAKLEVKFSWFMPSAPYWILATDYENYALVYSCTCIIQLFHVDFAWILA  
RNPNLPPETVDSLKNILTSNNIDVKKMTVTDQVNCPKLS

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**FIGURE 146**

GGCACGAGGCGGAGGGGGCTCAGTCCGCAGCCGCCGCCACCGCCGCGCCTCGGCCTCGGTGCAGGCAGCGGC  
CGCCGCCGCCGAGACAGCTGCGCGGGCGAGCATCCCCACGCAGCACCTTGGAAGTTGTTTTCAACCATATCCAGC  
CTTTGCCGAATACATCCTATCTGCCACACATCCAGCGTGAGGTCCCTCCAGCTACAAGGTGGGCACCATGGCGGA  
GAAGTTTGACTGCCACTACTGCAGGGATCCCTTGCAAGGGAAGAAGTATGTGCAAAAGGATGGCCACCACTGCTG  
CCTGAAATGCTTTGACAAGTTCTGTGCCAACACCTGTGTGGAATGCCGCAAGCCCATCGGTGCGGACTCCAAGGA  
GGTGCATAATAAGAACCGCTTCTGGCATGACACCTGCTTCCGCTGTGCCAAGTGCCTTCACCCCTTGGCCAATGA  
GACCTTTGTGGCCAAGGACAACAAGATCCTGTGCAACAAGTGCACCACTCGGGAGGACTCCCCCAAGTGCAAGGG  
GTGCTTCAAGGCCATTGTGGCAGGAGATCAAAACGTGGAGTACAAGGGGACCGTCTGGCACAAGACTGCTTCAC  
CTGTAGTAAGTGAAGCAAGTCATCGGGACTGGAAAGCTTCTCCCTAAAGGGGAGGACTTCTACTGCGTGACTTG  
CCATGAGACCAAGTTTGCCAAGCATTGCGTGAAAGTGAACAAGGCCATCACATCTGGAGGAATCACTTACCAGGA  
TCAGCCCTGGCATGCCGATTGCTTTGTGTGTGTTACCTGCTCTAAGAAGCTGGCTGGGCAGCGTTTCACCGCTGT  
GGAGGACCAGTATTACTGCGTGGATTGCTACAAGAACTTTGTGGCCAAGAAGTGTGCTGGATGCAAGAACCCCAT  
CACTGGGTTTGGTAAAGGCTCCAGTGTGGTGGCCTATGAAGGACAATCCTGGCACGACTACTGCTTCCACTGCAA  
AAAATGCTCCGTGAATCTGGCCAACAAGCGCTTTGTTTTCCACCAGGAGCAAGTGTATTGTCCCGACTGTGCCAA  
AAAGCTGTAAACTGACAGGGGCTCCTGTCTGTAAATGGCATTGGAATCTCGTTCTTTGTGTCCTTACTTTCTG  
CCCTATACCATCAATAGGGGAAGAGTGGTCCCTTCCCTTCTTTAAAGTCTCCTTCCGTCTTTTCTCCCATTTTAC  
AGTATTACTCAAATAAGGGCACACAGTGATCATATTAGCATTTAGCAAAAAGCAACCCTGCAGCAAAGTGAATTT  
CTGTCCGGCTGCAATTTAAAAATGAAAACCTAGGTAGATTGACTCTTCTGCATGTTTCTCATAGAGCAGAAAAGT  
GCTAATCATTTAGCCACTTAGTGATGTAAGCAAGAAGCATAGGAGATAAAACCCCACTGAGATGCCTCTCATGC  
CTCAGCTGGGACCCACCGTGTAGACACACGACATGCAAGAGTTGCAGCGGCTGCTCCAACCTACTGCTCACCCCTC  
TTCTGTGAGCAGGAAAAGAACCCTACTGACATGCATGGTTTAACTTCCTCATCAGAACTCTGCCCTTCCTTCTGT  
TCTTTTGTGCTTTCAAATAACTAACACGAACCTCCAGAAAATTAACATTGAACTTAGCTGTAATTCTAAACTGA  
CCTTTCCCCGTACTAACGTTTGGTTTCCCCGTGTGGCATGTTTTCTGAGCGTTCCTACTTTAAAGCATGGAACAT  
GCAGGTGATTGGGAAGTGTAGAAAGACCTGAGAAAACGAGCCTGTTTCAGAGGAACATCGTCAACGAATACT  
TCTGGAAGCTTAACAAAATAACCCTGCTGTCCTTTTTATTGTTTTTAATTAATATTTTTGTTTTAATTGATAGC  
AAAATAGTTTATGGGTTTGGAACTTGCATGAAAATATTTTAGCCCCCTCAGATGTTCCCTGCAGTGCTGAAATTC  
ATCCTACGGAAGTAACCGCAAACTCTAGAGGGGGAGTTGAGCAGGCGCCAGGGCTGTCATCAACATGGATATGA  
CATTTCAACACAGTGACTAGTTGAATCCCTTGTAACGTAGTAGTTGTCTGCTCTTTGTCCATGTGTTAATGAGGA  
CTGCAAAGTCCCTTCTGTTGTGATTCTTAGGACTTTTCTCAAGAGGAAATCTGGATTTCCACCTACCGCTTACC  
TGAAATGCAGGATCACCTACTTACTGTATTCTACATTATTATATGACATAGTATAATGAGACAATATCAAAAGTA  
AACATGTAATGACAATACATACTAACATTCTGTAGGAGTGGTTAGAGAAGCTGATGCCTCATTTCTACATTCTG  
TCATTAGCTATTATCATCTAACGTTTCAGTGTATCCTTACAGAAATAAAGCAGCATATGAAAAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 147**

MAEKFDCHYCRDPLQGKKYVQKDGHHCCLKCFDKFCANTCVECCKPIGADSKEVHYKNRFWHDTCFRCAKCLHPL  
ANETFVAKDNKILCNKCTTREDSPKCKGCFKAIVAGDQNVYKGTVWHKDCFTCSNCKQVIGTGSFFPKGEDFYC  
VTCHETKFAKHCVKCNKAITSGGITYQDQPWADCFVCVTCSSKLAGQRFETAVEDQYYCVDICYKNFVAKKCAGCK  
NPITGFGKGSSVAYEGQSWHDYCFHCKKCSVNLANKRFVFHQEQVYCPDCAKKL

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**FIGURE 148**

GAATTCGGGCGGGCTTCTTCGCTGCCGACGTACGACGAGTGGCCGGGCTCTTGCGTCTGGTAACGCGCTGTCTCT  
AACGCCAGCGCCGTCTCGCGCGCACTGCGCACAGACCACCCGAGACGCCCGGCAGTCCGCAGGCCCCAACGCGC  
ACGCGACCCCGCTCTCCGCACCGTACCCGGCCGCTCGGCATGCGCCCCGAGCGCCCGGCGACCCCTGCTGCT  
GCTACTGCCTGTTGCTGCTGCTCGGCCTCATGCATTGTCGTCAGCAGCCATGTTTATGGTGAAAAATGGCAACGG  
GACCGCGTGATAATGGCCAACTTCTCTGCTGCCTTCTCAGTGAACCTACGACACCAAGAGTGGCCCCAAGAACAT  
GACCTTTGACCTGCCATCAGATGCCACAGTGGTGCTCAACCGCAGCTCCTGTGGAAGAGAACTTCTGACCC  
CAGTCTCGTGATTGCTTTTGGGAAGAGGACATACACTCACTCTCAATTTACGAGAAATGCAACACGTTACAGCGT  
TCAGCTCATGAGTTTTGTTTATAACTTGTCTAGACACACACCTTTTCCCAATGCGAGCTCCAAAGAAATCAAGAC  
TGTGGAATCTATAACTGACATCAGGGCAGATATAGATAAAAAATACAGATGTGTTAGTGGCACCCAGGTCCACAT  
GAACAACGTGACCGTAACGCTCCATGATGCCACCATCCAGGCGTACCTTTCCAACAGCAGCTTCAGCAGGGGAGA  
GACACGCTGTGAACAAGACAGGCCTTCCCAACACAGCGCCCCCTGCGCCACCCAGCCCCCTCGCCCTCACCCGT  
GCCCAAGAGCCCCCTCTGTGGACAAGTACAACGTGAGCGGCACCAACGGGACCTGCCTGCTGGCCAGCATGGGGCT  
GCAGCTGAACCTCACCTATGAGAGGAAGGACAACACGACGGTGACAAGGCTTCTCAACATCAACCCCAACAAGAC  
CTCGGCCAGCGGGAGCTGCGGCGCCACCTGGTGACTCTGGAGCTGCACAGCGAGGGCACCACCGTCTCTGCTCTT  
CCAGTTCGGGATGAATGCAAGTTCTAGCCGGTTTTTCTACAAGGAATCCAGTTGAATACAATTCTTCTGACGC  
CAGAGACCTGCCTTTAAAGCTGCCAACGGCTCCCTGCGAGCGCTGCAGGCCACAGTCGGCAATTCCTACAAGTG  
CAACGCGGAGGAGCACGTCCGTGTACGAAGGCGTTTTAGTCAATATATTCAAAGTGTGGGTCCAGGCTTTCAA  
GGTGGAAGGTGGCCAGTTTGGCTCTGTGGAGGAGTGTCTGTGGACGAGAACAGCACGCTGATCCCCATCGCTGT  
GGGTGGTGCCCTGGCGGGGCTGGTCCTCATCGCTCCTCATCGCTACCTCGTCGGCAGGAAGAGGAGTCACGCAGG  
CTACCAGACTATCTAGCCTGGTGCACGCAGGCACAGCAGCTGCAGGGGCCTCTGTTCCCTTCTCTGGGCTTAGGG  
TCCTGTGCAAGGGGAGGCACACTTTCTGCAAACGTTTCTCAAATCTGCTTCATCCAATGTGAAGTTCATCTTGCA  
GCATTTACTATGCACAACAGAGTAACATATCGAAATGACGGTGTTAATTTTGCTAACTGGGTAAATATTTTGCTA  
ACTGGTTAAACATTAATATTTACCAAAGTAGGATTTTGAGGGTGGGGGTGCTCTCTCTGAGGGGGTGGGGGTGCC  
GCTGTCTCTGAGGGGTGGGGGTGCCGCTGTCTGAGGGGTGGGGGTGCCGCTCTCTCTGAGGGGGTGGGGGTGCCG  
CTTCTCTGAGGGGTGGGGGTGCCGCTCTCTCTGAGGGGGTGGGGGTGCTGCTCTCTCCGAGGGGTGGAATGCC  
GCTGTCTCTGAGGGGTGGGGGTGCCGCTCTAAATTGGCTCCATATCATTGAGTTTAGGGTTCTGGTGTGTTGGTTT  
CTTCATTCTTTACTGCACTCAGATTTAAGCCTTACAAAGGGAAACCTCTGGCCGTCACACGTAGGACGCATGAAG  
GTCACCTCGTGTGAGGCTGACATGCTCACACATTACAACAGTAGAGAGGGGAAATCCTAAGACAGAGGAACTCCAG  
AGATGAGTGTCTGGAGCGGCTTCAGTTCAGCTTTAAAGGCCAGGACGCGCGACACGTGGCTGGCGGCCTCGTTCC  
AGTGGCGGCACGTCTTGGCGTCTCTAATGTCTGCAGCTCAAGGGCTGGCACTTTTTTAAATATAAAAATGGTGT  
TATTTTTATTTTTTTTTGTAAAGTGATTTTTGGTCTTCTGTTGACATTCGGGTGATCCTGTTCTGCGCTGTGTAC  
AATGTGAGATCGGTGCGTTCTCCTGATGTTTTGCCGTGGCTTGGGGATTGTACACGGGACCAGCTCACGTAATGC  
ATTGCTGTAAACATGTAATAAAAAGCCTCTTTCTTTCAAAAAAACCCCGAATTC



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**FIGURE 149**

MAPRSARRPLLLLLPVAAARPHALSSAAMFMVKNNGTACIMANFSAAFSVNYDTKSGPKNMTFDLPSDATVVLN  
RSSCGKENTSDPSLVIAFGRGHTLTNLNFRNATRYSVQLMSFVYNLSDLHLFPNASSKEIKTVESITDIRADIDK  
KYRCVSGTQVHMNNVTVTLHDATIQA YLSNSSFSRGETRCEQDRPSPPTTAPPAPPSPSPSPVPEKSPSVDKYNVSG  
TNGTCLLASMGLQLNLTYERKDNTTVTRLLNINPNKTSASGSCGAHLVTLELHSEGTTVLLFQFGMNASSSRFFL  
QGIQLNTILPDARDPAFKAANGSLRALQATVGNSYKCNAAEEHVRVTKAFSVNIFKVWVQAFKVEGGQFGSVEECL  
LDENSTLIPIAVGGALAGLVLIIVLIAYLVGRKRSHAGYQTI

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**FIGURE 150**

GCGGAGGGTGCGTGCGGGCCGCGGCAGCCGAACAAAGGAGCAGGGGCGCCGCCGAGGGACCCGCCACCCACCTC  
CCGGGGCCGCGCAGCGGCCTCTCGTCTACTGCCACCATGACCGCCAACGGCACAGCCGAGGCGGTGCAGATCCAG  
TTCGGCCTCATCAACTGCGGCAACAAGTACCTGACGGCCGAGGCGTTTCGGGTTCAAGGTGAACGCGTCCGCCAGC  
AGCCTGAAGAAGAAGCAGATCTGGACGCTGGAGCAGCCCCCTGACGAGGCGGGCAGCGCGGCCGTGTGCTGCGC  
AGCCACCTGGGCGCTACCTGGCGGCGGACAAGGACGGCAACGTGACCTGCGAGCGCGAGGTGCCCCGTCCCGAC  
TGCCGTTTCTCATCTGTTGGCGCACGACGACGGTTCGCTGGTTCGCTGCAGTCCGAGGCGCACCGGCGCTACTTCGGC  
GGCACCGAGGACCGCCTGTCTGCTTCGCGCAGACGGTGTCCCCCGCCGAGAAGTGGAGCGTGCACATCGCCATG  
CACCCTCAGGTCAACATCTACAGTGTACCCCGTAAGCGCTACGCGCACCTGAGCGCGCGGCCCGGCCGACGAGATC  
GCCGTGGACCGCGACGTGCCCTGGGGCGTCGACTCGCTCATCACCTCGCCTTCAGGACCAGCGCTACAGCGTG  
CAGACCGCCGACCACCGCTTCCTGCGCCACGACGGGCGCCTGGTGGCGCGCCCCGAGCCGGCCACTGGCTACACG  
CTGGAGTTCGCTCCGGCAAGGTGGCCTTCGCGGACTGCGAGGGCCGTTACCTGGCGCCGTGCGGGCCAGCGGC  
ACGCTCAAGGCGGGCAAGGCCACCAAGGTGGGCAAGGACGAGCTCTTTGCTCTGGAGCAGAGCTGCGCCCAGGTC  
GTGCTGCAGGCGGGCAACGAGAGGAACGTGTCCACGCGCCAGGGTATGGACCTGTCTGCCAATCAGGACGAGGAG  
ACCGACCAGGAGACCTTCAGCTGGAGATCGACCGCGACACCAAAAAGTGTGCCTTCGTAACCCACACGGGCAAG  
TACTGGACGCTGACGGCCACCGGGGGCGTGACGTCCACCGCCTCCAGCAAGAATGCCAGCTGCTACTTTGACATC  
GAGTGGCGTGACCGGCGCATCACACTGAGGGCGTCCAATGGCAAGTTTGTGACCTCCAAGAAGAATGGGCAGCTG  
GCCGCTCGGTGGAGACAGCAGGGGACTCAGAGCTCTTCCTCATGAAGCTCATCAACCGCCCCATCATCGTGTTT  
CGCGGGGAGCATGGCTTCATCGGCTGCCGCAAGGTACGGGCACCCTGGACGCCAACCGCTCCAGCTATGACGTC  
TTCCAGCTGGAGTTCAACGATGGCGCCTACAACATCAAAGACTCCACAGGCAATACTGGACGGTGGGCAGTGAC  
TCCGCGGTACCAGCAGCGGCACACTCCTGTGGACTTCTTCTTCGAGTTCTGCGACTATAACAAGGTGGCCATC  
AAGGTGGGCGGGCGCTACCTGAAGGGCGACACGCGAGGCGTCTGAAGGCCTCGGCGGAAACCGTGGACCCCCGCC  
TCGCTCTGGGAGTACTAGGGCCGGCCCCGTCTTCCCCGCCCTGCCACATGGCGGCTCTTGCCAACCTCCCTG  
CTAACCCCTTCTCCGCCAGGTGGGCTCCAGGGCGGGAGGCAAGCCCCCTTGCTTTCAAACCTGGAAACCCAGAG  
AAAACGGTGCCCCACCTGTGCCCCCTATGGACTCCCCACTCTCCCCCTCGGCCGGGTTCCTACTCCCCCTCGGG  
TCAGCGGCTGCGGCCTGGCCCTGGGAGGGATTTAGATGCCCTGCCCTCTTGTCTGCCACGGGGCGAGTCTGGC  
ACCTCTTCTTCTGACCTCAGACGGCTCTGAGCCTTATTTCTCTGGAAGCGGCTAAGGGACGGTTGGGGGCTGGG  
AGCCCTGGGCGTGTAGTGTAAGTGAATCTTTTGCTCTCCAGCCACCTCCTCCAGCCCCCAGGAGAGCTGG  
GCACATGTCCCAAGCCTGTAGTGGCCCTCCCTGGTGCACTGTCCCCGAAACCCCTGCTTGGGAAGGGAAGCTGT  
CGGGAGGGCTAGGACTGACCCTTGTGGTGTTTTTTTGGGTGGTGGCTGGAAACAGCCCCTCTCCACGTGGGAGA  
GGCTCAGCCTGGCTCCCTTCCCTGGAGCGGCAGGGCGTGACGGCCACAGGGTCTGCCCGCTGCACGTTCTGCCAA  
GGTGGTGGTGGCGGGCGGGTAGGGGTGTGGGGGCCGTCTTCCCTCTGTCTCTTTCTTTTACCCTAGCCTGACTG  
GAAGCAGAAAATGACCAATCAGTATTTTTTTTAAATGAAATATTATTGCTGGAGGCGTCCAGGCAAGCCTGGCT  
GTAGTAGCGAGTGATCTGGCGGGGGCGTCTCAGCACCTCCCCAGGGGTGCATCTCAGCCCCCTCTTTCCGTC  
CTTCCCGTCCAGCCCCAGCCCTGGGCCTGGGCTGCCGACACCTGGGCCAGAGCCCCTGCTGTGATTGGTGCTCCC  
TGGGCCTCCCGGGTGGATGAAGCCAGGCGTCGCCCCCTCCGGGAGCCCTGGGGTGAGCCGCCGGGGCCCCCTGC  
TGCCAGCCTCCCCCGTCCCCAACATGCATCTCACTCTGGGTGTCTTGGTCTTTTATTTTTTGTAAAGTGTCAATTG  
TATAACTCTAAACGCCCCATGATAGTAGCTTCAAACCTGGAAATAGCGAAATAAAATAACTCAGTCTGC

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**FIGURE 151**

MTANGTAEAVQIQFGLINCGNKYLTAEAFGFKVNASASSLKKKQIWTLEQPPDEAGSAAVCLRSHLGGRYLAADKD  
GNVTCEREVPGPDCRFLIVAHDDGRWSLQSEAHRRYFGGTEDRLSCFAQTVSPA EKWSVHIAMHPQVNIYSVTRK  
RYAHL SARP ADEI AVDRDVPWGVDSLITLAFQDQRYSVQTADHRFLRHDGRLVARPEPATGYTLEFRSGKVAFRD  
CEGRYLAPSGPSGTLKAGKATKV GKDELFALEQSCAQVVLQAANERNVSTRQGMDLSANQDEETDQETFQLEIDR  
DTKKCAFRTHTGKYWTLTATGGVQSTASSKNASCYFDIEWRDRRITLRASNGKFVTSKKNGQLAASVETAGDSEL  
FLMKLINRPIIVFRGEHGFICRKVTGTL DANRSSYDVFQLEFNDGAYNIKDSTGKYWTVGSDSAVTSSGDTFVD  
FFFEFC DYNKVAIKVGGRYLKGDHAGVLKASAETVDPASLWEY

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**FIGURE 152A**

CGGCACGAGCGCGCTCCACCGGCTCCCCGGCTCGCGCCGCTCCATGTAGCCCCGGCTCCCCGGGCGGCCGCGGA  
GGAGGGGGCGACCACAAGATGCGGACCTCTCGCTGCTTCAGGAGGACCTGCAGGAGGACGCAGACGGATCCCTG  
GACTTTGTCTCACAAGATGAAATGTTGACGCCCCTGGGGAGATTGGACAAGTATGCTGCAAGTGAGAACATATTT  
AACAGACAAATGGTGGCCCCGAGTTTGCTCGATACCTTGAGGGAAGTCTGCGATGATGAAAGAGATTGTATTGCT  
GTTTTGGAAAGAATTAGCAGATTGGCCGATGATTCAGAACCAACTGTGAGAGCGGAGCTGATGGAACAGGTGCCT  
CACATCGCACTGTTTTGTCAAGAAAACCGGCTTCAATACCATATGCTTTTTTCAAATTTCTTACTACCTATTGTG  
GTTAGATACCTTGACAGATCAGAATAATCAGGTGAGGAAAACAAGTCAGGCAGCTTTTGCTGGCTCTGTTGGAGCAG  
GAGCTCATTGAACGATTTGATGTGGAGACCAAGTGTGCCCTGTCCTCATAGAGCTGACAGCCCCAGATAGCAAT  
GATGATGTGAAAACAGAAGCTGTGGCTATAATGTGCAAAATGGCTCCCATGGTTGGGAAGGATATTACAGAGCGT  
CTTATCCTCCCTAGGTTTTGTGAGATGTGCTGCGATTGCAGAAATGTTTCACGTTTCGAAAGGTCTGTGCTGCCAAT  
TTTGGAGATATTTGCAGTGTAGTTGGCCAGCAAGCTACTGAAGAAATGTTGCTGCCAGATTTTTCCAGCTTTGT  
TCTGATAATGTATGGGGAGTCCGAAAGGCTTGTGCTGAATGCTTCATGGCGGTTTTCATGTGCAACATGTCAAGAA  
ATCCGACGGACCAATTATCAGCACTTTTTTATTAATTTGATCAGTGATCCTTCACGTTGGGTTCCGCAAGCAGCT  
TTTCAGTCTCTGGGACCTTTTCATATCTACTTTTTGCTAATCCATCTAGCTCAGGCCAGTATTTTAAAGAAGAAAGC  
AAAAGTTCAGAAGAGATGTCTAGTAGAAAACAAAAATAGGACCAGAGATCAAGAAGCCCCAGAGGATGTACAAGTC  
AGGCCAGAGGATACTCCTTCAGATCTCAGTGTTAGTAATTCAGTGTCATACTGGAAAACACGATGGAAGACCAT  
GCTGCTGAGGCATCCGGGAAGCCTCTAGGTGAAATTAGTGTCCACTGGACAGCTCTTTACTTTGTACTTTGTCC  
TCAGAACTCTACCAGGAAGCAGCTAGTAATGAGAATGATAAAAAACCTGGTAACTACAAATCTATGTTACGACCA  
GAGGTTGGCACCACCTTCACAAGATTCAGCTCTCTTAGATCAGGAATTGTATAACTCCTTCCATTTCTGGAGGACT  
CCTCTTCCTGAAATAGATCTAGACATAGAGCTTGAACAGAACTCTGGGGGAAAACCCAGCCCAGAGGGACCAGAG  
GAAGAATCTGAGGGCCCTGTGCCCAGTTCTCCAAACATCACCATGGCCACCAGAAAGGAACCTGGAAGAAATGATA  
GAAATCTAGAGCCCCACATTGATGATCCAGATGTTAAAGCACAAGTGGAAGTGCTGTCCGCTGCACTACGTGCT  
TCCAGCCTGGATGCACATGAAGAGACCATCAGTATAGAAAAGAGAAGTGATTGCAAGATGAAGTGGATATAAAT  
GAGCTACCAAATTGTAAATAAATCAAGAAGATTCTGTGCCCTTAATCAGCGATGCTGTTGAGAATATGGACTCC  
ACTCTTCACTATATTCACAGCGATTTCAGACTTGAGCAACAATAGCAGTTTTAGCCCTGATGAGGAAAGGAGAACT  
AAAGTACAAGATGTTGTACCTCAGGCGTTGTTAGATCAGTATTTATCTATGACTGACCCTTCTCGTGACAGACG  
GTTGACACTGAAATTGCTAAGCACTGTGCATATAGCCTCCCTGGTGTGGCCTTGACACTCGGAAGACAGAATTGG  
CACTGCCTGAGAGAGACGTATGAGACTCTGGCCTCAGACATGCAGTGGAAGTTCGACGAACCTCTAGCATTCTCC  
ATCCACGAGCTTGCAAGTATTCTTGGAGATCAATTGACAGCTGCAGATCTGGTTCCAATTTTTTAATGGATTTT  
AAAGACCTCGATGAAGTCAGGATAGGTGTTCTTAAACACTTGCATGATTTTTCTGAAGCTTCTTCATATTGACAAA  
AGAAGAGAATATCTTTATCAACTTCAGGAGTTTTTGGTGACAGATAATAGTAGAAATTGGCGGTTTTCGAGCTGAA  
CTGGCTGAACAGCTGATTTTACTTCTAGAGTTATATAGTCCAGAGATGTTTATGACTATTTACGTCCCATTTGCT  
CTGAATCTGTGTGCAGACAAAGTTTTCTTCTGTTGCTTGGATTTCCTACAAGTTGGTCAGCGAGATGGTGAAGAAG  
CTGCACGCGGCAACACCACCAACGTTTCGGAGTGGACCTCATCAATGAGCTTGTGGAGAAGTTTGGCAGATGTCCC  
AAGTGGTCTGGTCGGCAAGCCTTTGTCTTTGTCTGCCAGACTGTCAATTGAGGATGACTGCCTTCCCATGGACCAG  
TTTGCTGTGCATCTCATGCCGCATCTGCTAACCTTAGCAATGACAGGGTTCCTAACGTGCGAGTGCTGCTTGCA  
AAGACATTAAGACAAACTCTACTAGAAAAGACTATTTCTTGGCCTCTGCCAGCTGCCACCAGGAGGCTGTGGAG  
CAGACCATCATGGCTCTTCAGATGGACCGTGACAGCGATGTCAAGTATTTTGCAAGCATCCACCCTGCCAGTACC  
AAAATCTCCGAAGATGCCATGAGCACAGCGTCTCAACCTACTAGAGGCTTGAATCTCGGTGTCTTTCTGCTT  
CCATGAGAGCCGAGGTTTCAGTGGGCATTGCCACGCATGTGACCTGGGATAGCTTTTCGGGGGAGGAGAGACCTTC  
CTCTCCTGCGGACTTCATTGCAGGTGCAAGTTGCCTACACCCAATACCAGGGATTTCAGAGTCAAGAGAAAGTA  
CAGTAAACACTATTATCTTATCTTGACTTTAAGGGGAAATAATTTCTCAGAGGATTATAATTGTACCAGGAGCCT  
TAAATCCTTCTGTCTTCTGACTGAATGAACTTGAATTGGCAGAGCATTTCCTTATGGAAGGGATGAGATTCC  
CAGAGACCTGCATTGCTTTCTCCTGGTTTTATTTAACAATCGACAAATGAAATTTCTTACAGCCTGAAGGCAGACG  
TGTGCCAGATGTGAAAGAGACCTTCAGTATCAGCCCTAACTCTTCTCTCCAGGAAGGACTTGCTGGGCTCTGT  
GGCCAGCTGTCCAGCCCAGCCCTGTGTGTGAATCGTTTGTGACGTGTGCAAAATGGGAAAGGAGGGGTTTTTACAT  
CTCCTAAAGGACCTGATGCCAACACAAGTAGGATTGACTTAAACTCTTAAGCGCAGCATATTGCTGTACACATTT  
ACAGAATGGTTGCTGAGTGTCTGTGTCTGATTTTTTTCATGCTGGTCATGACCTGAAGGAAATTTATTAGACGTAT

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**FIGURE 152B**

AATGTATGTCTGGTGTTTTTAACTTGATCATGATCAGCTCTGAGGTGCAACTTCTTCACATACTGTACATACCTG  
TGACCACTCTTGGGAGTGCTGCAGTCTTTAATCATGCTGTTTAACTGTTGTGGCACAAGTTCTCTTGTCCAAAT  
AAAATTTATTAATAAGATCTATAGAGAGAGATATATACACTTTTGATTGTTTTCTAGATGTCTACCAATAAATGC  
AATTTGTGACCTGTAAAAAAAAAAAAAGAAACTCGAGGAGGGCCCGGGCC

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**FIGURE 153**

MADLSLLQEDLQEDADGSLDFVSQDEMLTPLGRLDKYAASENIFNRQMVARSLDLTLREVCDDERDCIAVLERIS  
RLADDSEPTVRAELMEQVPHIALFCQENRPSIPYAFSKFLLPIVVRYLADQNNQVRKTSQAALLALLEQELIERF  
DVETKVCPLVLIELTAPDSNDDVKTEAVAIMCKMAPMVGKDITERLILPRFCMCCDCRMFHVVRKVCANFGDICS  
VVGQQATEEMLLPRFFQLCSDNVWGVKACAECFMAVSCATCQEIRRTKLSALFINLISDPSRWVRQAAFQSLGP  
FISTFANPSSSGQYFKEESKSSEEMSVENKNRTRDQEAPEDVQVRPEDTPSDLSVSNSSVILENTMEDHAAEASG  
KPLGEISVPLDSSLLCTLSSESHQEAASNENDKKPGNYKSMLRPEVGTTSQDSALLDQELYNSFHFWRTPLPEID  
LDIELEQNSGGKPSPEGPEEESEGPVPSSPNITMATRKELEEMIENLEPHIDDPDVKAQVEVLSAALRASSLDAH  
EETISIEKRSDLQDELINELPNCKINQEDSVPLISDAVENMDSTLHYIHSDSDLSNNSFSPEDEERRTKVQDVV  
PQALLDQYLSMTDPSRAQTVDTETIAKHCAYSLPGVALTLGRQNWHLRETYETLASDMQWKVRRTLAFSIHELAV  
ILGDQLTAADLVP IFNGFLKDLDEVRI GVLKHLHDFL KLLHIDKRREYLYQLQEFLVTDNSRNWRFRAELAEQLI  
LLELYSPRDVYDYL RPIALNLCADKVSSVRWISYKLVSEMVKKLHAATPPTFGVDLINELVENFGRCPKWSGRQ  
AFVFVCQTVIEDDCLPMDQFAVHLMPHLLTLANDRVPNVRVLLAKTLRQTLLEKDYFLASASCHQEAVEQTIMAL  
QMDRDSVKYFASIH PASTKISEDAMSTASTY

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**FIGURE 154**

AGGCGCTGCGGCCGTCCCGGGCCGTGACTCCTCCTTTCCCCCGCCCCGCCTCCGTTCCGGAGAGCCGGCGGGCGGG  
CGCCTCTCGGCCAGGTACGCGGCCGGCTGGGATAGGGGTCGCGGGCGGGCTTTGGTTCGCGCAGCAGCCGGTCCTC  
CCCGGAGGTAGGCGGGCGCGGGCCCTGTTGGGTCCTTTGGGACGCGGGTCCCGCTGGGGCCGGGGATGCTCCTCTC  
TGTGAGCGCGGTCCCGTCCCCCCTGTCCCGGGCGGGCGCACGGGGGTCTAACCTTGGGGGGCGGCGCTCCCGC  
CTGTCCCGGGTGCCGGGGTTCGCGTCCCGCGGGGCCTTCCTCGCTCCTTTGTCTCTTCTGAGTGAACCTTGATGACC  
CCCTTCTTCCAGGAAGCGCCTCTTGACGCGTGTGACCGATGCCAGATTGCACGACCACTTCTGGAGCTGCTCC  
TGTGCGCACAGCGCGAGGCGCCGAGGCCCGCGAGCCAGCACCGCGGGGCTGCCGCCAAGGTTGGGGAGATG  
ATCAACGTTTCCGTGTCCGGGCCCTCCCTGCTGGCGGGCCACGGTGCCCCGGACGCTGACCCGCGCCAGGGGC  
CGCAGTGCTGCGATGAGCGGCCCGAGCCCGGCAGCCCTACCCCAACACCTGGCATCATCGCCTGTTGCAGAGG  
AGCCTCGTGCTCTTCTCGGTTGGGGTGGTCTAACCTGGTGCTAACCTGCTGCAGATCCAGAGGAATGTCAT  
CTCTTCCCCGAGGAGGTGATCGCCACCATCTTTTCTCCGCTGGTGGGTCCCTCCCTGCTGCGGGACAGCAGCT  
GCTGTTGTTGGCCTACTGTACCCCTGTATCGACAGTCACCTCGGAGAACCCACAAATTTAAGAGAGAATGGGCC  
AGTGTCATGCGCTGCATAGCAGGTTTTGGTGGCATTAAACACGCCAGTGCTAAATGGATTTTGGCAATAATGTC  
CAGCTGTCTTGACTTTAGCAGCCCTATCTTTGGGCCTTTGGTGGACATTTGATCGTTCAGAAAGTGGCCTTGGG  
CTGGGGATCACCATAGCTTTTCTAGCTACGCTGATCACGAGTTTCTCGTGATAATGGTGTCTATCAGTATACG  
TCCCCAGATTTCTCTATATTCGTTCTTGGCTCCCTTGTATATTTTCTCAGGAGGCGTCACGGTGGGGAACATA  
GGACGACAGTTAGCTATGGGTGTTTCTGAAAAGCCCCATAGTGATTGAGTCTTCAAAAACCAACGATTCTGAGAGC  
AAGGAAGATTTTGAAGAAAATCTGACTGTGGATTATGACAAAGATTATCTTTTTTCTTAAGTAATCTATTTAGA  
TCGGGCTGACTGTACAAATGACTCCTGGAAAAAATCGTCACCTATCTAGAAAAAGTCAAGAATAGGGAGGTGGAG  
AATGATGACTTACCCTGAAGTCTTCCCTTGCTACCCACACTGGCGCCTGTCTGTGCCCTGGAGCATTCTGCCAG  
CCTACGTGGGTTCAGTCAGGTGCCACCTTCCCAAGTATTCGATTTCAATCATGTGATTAAACAAGTTGCCATAT  
TTCAAAGCCTTGAGCTAAGACTCAATTACCAACCCGAGTTTTGTGTGAGTGCCCAAAGGAGGGAGGTTGATGGT  
GCTTAACAAACATGAAGTATGGTGTAAATAGGAATAATATTTATCCAAAAGATTTTTTAAAAATAGGGCTGTGTTTA  
AAGAAGGAATCAAAAACAAGAAAAGCAGCAGTGATTATAGAGAGGTCACACTCTAAGTGGGGTCGCGGCGTGGCCA  
CGCTTCACGGTCACGCTCGTCCGTCTGACGTGGCGTGTTTACATGGTCACACGTGTGTGTATCACCAGTGGGTC  
AACTGCTTGTGATTCTCCTCCCGCGGCAGTGTTGTGTAGACAATCTTACTGAGCAAAAAGGCAATGAAAAGTCTTGGG  
CTCCACACTGCGATATATTGGAATTCCCACCTCAGTTTATGAAGTTTATTTGAAAATCCATAGTCATCTAAGAA  
TGAATACCTGTCTGCCATGTATTTCAATCTTAGTGAGCCAAAATTGTTTGTGTTTACTACAGAATAGAGATGAC  
TGTTTTTTTGGCACAGCCCTATGGAATTTGCAATCTGTGATTGCCTTGTA AAAAGGAGAGTGATATGGCACTGCA  
TTAAACGTGTGGTGTCTTAGTCAATGATATTGGTGAGCACAATGTATTCAATTAATGGCATAGACCATAACCAGA  
CCTAATTTGCAAGTATTGGGTCTTCAAACCTCAAGTGCAATGTATTATGAAAACCAATCTGAGCCTTGATCTCT  
TAAATATTTATTCCTTCTAACGTGTGAGATGTCCCGAGAGAAGGGTCTCCATTCATTTAGTGCTGCCTGGAGG  
AAACTCGGCAATGATTTCTTCAGTTGTGAAGTTCCTTTCCGGGTACAACCTCCACTGGAACCTCAACCTTCGAA  
ATACTCCAGTTTTGGGGGTGGGGCCATTTACTTATAAATTTACCGCCGGGTTTTTGGAATCTACATGTCTTGGG  
GGCGGGCTCAAATTCCTCGAAAGTGGTTGGATTAAAA

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**FIGURE 155**

MPRLHDHFWSCSCAHSARRRGPPRASTAGLPPKVGEMINVSVSGPSLLAAHGAPDADPAPRGRSAAMSGPEPGSP  
YPNTWHRLLQRSVLFSVGCVLTTLVLNLLQIQRNVTLPFEEVIATIFSSAWWVPPCCGTAAAVVGLLYPCIDSH  
LGEPHKFKREWASVMRCIAGFGGINHASAKLDFANNVQLSLTLAALSGLWWTFDRSRSGGLGITIAFLATLIT  
QFLVYNGVYQYTSPDFLYIRSWLPCIFFSGGVTVGNIGRQLAMGVPEKPHSD



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**FIGURE 156**

AGCTCGGTCCTGCTGGAGGCCACGGGTGCCACACACTCGGTCCCGACATGATGGCGAGCATGCGAGTGGTGAAGG  
AGCTGGAGGATCTTCAGAAGAAGCCTCC~~CC~~CATACCTGCGGAACCTGTCCAGCGATGATGCCAATGTCCTGGTGT  
GGCAGCTCTCCTCCTACCCGACCAACCTCCCTACCACCTGAAAGCCTTCAACCTGCGCATCAGCTTCCCGCCGG  
AGTATCCGTTCAAGCCTCCCATGATCAAATTCACAACCAAGATCTACCACCCCAACGTGGACGAGAACGGACAGA  
TTTGCCTGCCCATCATCAGCAGTGAGAACTGGAAGCCTTGACCAAGACTTGCCAAGTCTTGAGGGCCCTCAATG  
TGCTGGTGAATAGACCGAATATCAGGGAGCCCTGCGGATGGACCTCGCTGACCTGCTGACACAGAATCCGGAGC  
TGTCAGAAAGAATGCCGAAGAGTTCACCCTCCGATTGCGAGTGGACCGGCCCTCCTAACTCATGTTCTGACCCT  
CTGTGCACTGGATCCTCGGCATAGCGGACGGACACACCTCATGGACTGAGGCCAGAGCCCCCTGTGGCCCATTCC  
CCATTCATTTTTCCCTTCTTAGGTTGTTAGTCAATTAGTTTGTGTGTGTGTGTGGTGGAGGGAAGGGAGCTATGAG  
TGTGTGTGTGTGTATGGACTCACTCCAGGTTACCTGGCCACAGGTGCACCCTTCCCACACCCTTTACATTCC  
CCAGAGCCAAGGGAGTTTAAGTTTGCAGTTACAGGCCAGTTCTCCAGCTCTCCATCTTAGAGAGACAGGTCACCT  
TGCAGGCCTGCTTGCAGGAAATGAATCCAGCAGCCAACTCGAATCCCCCTAGGGCTCAGGCACTGAGGGCCTGGG  
GACAGTGGAGCATATGGGTGGGAGACAGATGGAGGGTACCCTATTTACAACCTGAGTCAGCCAAGCCACTGATGGG  
AATATACAGATTTAGGTGCTAAACCGTTTATTTTCCACGGATGAGTCACAATCTGAAGAATCAAACCTTCCATCCT  
GAAAATCTATATGTTTCAAACCACTTGCCATCCTGTTAGATTGCCAGTTCCTGGGACCAGGCCTCAGACTGTGA  
AGTATATATCCTCCAGCATTCACTCCAGGGGGAGCCACGGAAACCATGTTCTTGCTTAAGCCATTAAAGTCAGAG  
ATGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 157**

MMASMRVVKELEDLQKKPPPYLRNLSSDDANVLVWHALLLPDQPPYHLKAFNLRISFPPEYPFKPPMIKFETTKIY  
HPNVDENGQICLP IISSENWKPC TKTCQVLEALNVLVNRPNIREPLRMDLADLLTQNP ELFRKNAEEFTLRFGVD  
RPS

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**FIGURE 158A**

CTGTGTTCCACCCGCCTGGGCTAGCACGTGGGGGAGCTGCGGAAGCGCGGCGCTGCGGGCCGGGCGCGGGGCAC  
AGCCGGGGGCGGCGGCGGCGGCGGACTCCGCATCCCGCACCCCGATGGTAGGCGAGGAGCTGGTGTAATTACT  
TCAAGCCTCCAGGATGGCAATCCAGTTCCGTTTCGCTCTTCCCTTGGCATTGCCTGGGATGCTGGCGCTCCTCGG  
CTGGTGGTGGTTTTTCTCTCGTAAAAAAGGCCATGTCAGCAGCCATGATGAGCAGCAGGTGGAGGCTGGTGCTGT  
GCAGCTGAGGGCTGACCCTGCCATCAAGGAACCTCTCCCCGTGGAAGACGTCTGTCCCAAAGTAGTGTCACACC  
CCCCAGTGTCACAGAGCCTCCAGAAAAGGAACCTGTCCACCGTGAGCAAGCTGCCTGCAGAGCCCCCAGCATTGCT  
CCAGACACACCCACCTTGCCGAAGATCAGAGTCCTCGGGCATTCCTTCTAACACCACAGACATGAGATTGCGACC  
AGGAACACGCAGAGATGACAGTACAAAGCTGGAGCTAGCCCTGACAGGTGGTGAAGCCAAATCGATTCTCTAGA  
GTGCCCCCTTTCATCCCCAAAGGGTGTACTATTCTCCAGCAAATCAGCTGAGGTGTGTAAGCAAGATTCCCCCTT  
CAGCAGGGTGCCAAGGAAGGTCCAGCCAGGCTACCCCGTAGTCCCGCAGAGAAGCGTAGCTCTGGGGAGAGGGC  
AAGAGAGACAGGTGGGGCCGAAGGGACTGGTGATGCCGTGTTGGGGGAAAAGGTGCTTGAAGAAGCTCTGTTGTC  
TCGGGAGCATGTCTTGGAATTGGAGAACAGCAAGGGCCCCAGCCTGGCCTCTTTAGAGGGGGAAGAAGATAAGGG  
GAAGAGCAGCTCATCCCAGGTGGTGGGGCCAGTGCAGGAGGAAGAGTATGTAGCAGAGAAGTTGCCAAGTAGGTT  
CATCGAGTCGGCTCACACAGAGCTGGCAAAGGACGATGCGGCGCCAGCACCCCCAGTCGCAGACGCCAAAGCCCCA  
GGATAGAGGTGTGAGGGGAGAACTGGGCAATGAGGAGAGCTTGATAGAAATGAGGAGGGCTTGATAGAAATGA  
GGAGGGCTTGATAGAAATGAGGAGAGCTTGATAGAAATGAGGAGGGCTTGATAGAAATGAGGAGATTAAGCG  
GGCTGCCTTCCAGATAATCTCCCAAGTGATCTCAGAAGCAACCGAACAGGTGCTGGCCACCACGGTTGGCAAGGT  
TGCAGGTGCTGTGTGTGTCAGGCCAGTCAGCTCCAAGGGCAGAAGGAAGAGAGCTGTGTCCAGTTCACCAGAAAAC  
TGTCTTGGGGCCAGACACTGCGGAGCCTGCCACAGCAGAGGCAGCTGTTGCCCCGCCGATGCTGGCCTCCCCCTT  
GCCAGGCCTACCAGCAGAGGGCTCACCACCACCAAAGACCTACGTGAGCTGCCTGAAGAGCCTTCTGTCCAGCCC  
CACCAAGGACAGTAAGCCAAATATCTCTGCACACCACATCTCCCTGGCCTCCTGCCTGGCACTGACCACCCCCAG  
TGAAGAGTTGCCGACCGGGCAGGCATCCTGGTGAAGATGCCACCTGTGTACCTGCATGTGACAGCAGGCCA  
AAGTGTCCTTTGGTGGCTTCTCCAGGACACTGCTCAGATTCTTTTACGACTTCAGGGCTTGAAGACTCTTGAC  
AGAGACCAGCTCGAGCCCCAGGGACAAGGCCATCACCCCGCCACTGCCAGAAAGTACTGTGCCCTTCAGCAATGG  
GGTGCTGAAGGGGGAGTTGTGCACTTGGGGCTGAGGATGGATGGACCATGGATGCGGAAGCAGATCATTGAGG  
AGGTTCTGACAGGAACAGCATGGATTCCGTGGATAGCTGTTGCACTCTCAAGAAGACTGAGAGCTTCCAAATGC  
CCAGGCAGGCTCCAACCTAAGAAGGTGACCTCATCATCTGGGAGATCGAGGTGCCAAAGCACTTAGTCGGTCG  
GCTAATTGGCAAGCAGGGGCGCTATGTGAGTTTTCTGAAGCAAACATCTGGTGCCAAGATCTACATTTCAACCTT  
GCCTTACACCCAGAGCGTCCAGATCTGCCACATAGAAGGCTCTCAACATCATGTAGACAAAGCGCTGAACTTGAT  
TGGGAAGAAGTTCAAAGAGCTGAACCTACCAATATCTACGCTCCCCATTGCCTTCACTGGCACTGCCTTCTCT  
GCCGATGACATCCTGGCTCATGCTGCCTGATGGCATCACCGTGGAGGTGCTGTTGTTCAACCAGGTCAATGCCGG  
GCACCTGTTGCTGTCAGCAGCACACACACCCTACCTTCCACGCGCTGCGCAGCCTCGACCAGCAGATGTACCTCTG  
TTACTCTCAGCCTGGAATCCCCACCTTGCCACCCAGTGGAATAACGGTCATCTGTGCCGCCCTGGTGCGGA  
CGGGGCTGGTGGCGAGCCCCAAGTGTTGCCTCCTACGAGGAGACCAACGAAGTGAGATTGATACGTGGACTA  
CGGCGGATATAAGAGGGTGAAAGTAGACGTGCTCCGGCAAATCAGGTCTGACTTTGTACCCCTGCCGTTTCAGGG  
AGCAGAAGTCCTTCTGGACAGTGATGCCCCCTGTCAGACGATGACCAGTTTTCACCGGAAGCAGATGCCGCCAT  
GAGCGAGATGACGGGGAATACAGCACTGCTTGCTCAGGTGACAAGTTACAGTCCAACCTGGTCTTCTCTGATTCA  
GCTGTGGAGTGTGGTTGGAGATGAAGTGGTGTGATAAACCGGTCCCTGGTGGAGCGAGGCCTTGCCAGTGGGT  
AGACAGCTACTACACAAGCCTTTGACCCCCATGCTGCTTCTGAGAGTCTTTTTTTGCACTGTTGAAATTGGGCT  
TGGCACTCAAGTCAAAGATGAACATCGGAATAACAAACATTGTCTCTCCAGAAAGTCCTTTCTTTATCCATACT  
GTAGTCCTATTGAGAAGACATTTTCGTCTCTGAGAAAAAAGGATGGAACATATGGGTTCTCTTCGCAAAGCCAAAGG  
ATAGTGTTTAACAAGCCAGCTGGCTTATCCTGGTTCTCAGCTGTTTAAAAAAGGAAATAGAAACA  
GTTTCAACCAGATTGTCTTATCCCCCTGTTCATTCCCCCTCTTCTTCTTCTATCTCTTCCCCGGCAAAAACC  
AAACAACTGGCAGACAGGCCAGGGATGTATGTTGCTTGCTTGAGAGGGTTTCTTTTACTTCAAAATCTTTCTTC  
AGGGAGCAAGACATGAAGTACTAATTGGTATCCACTACTTGTACAGCTTACATAAATGAGTTGATGATATTTAA  
CCAGTTTTTATAAATTCATTTAGGTCTCTAAACACAGACTTTTTAAATTGCAACTGTAAATATGAAATGGTCAT  
CACATCTGACCTTGGTCAGTGGGGAGGGGAAGTGGTATCCTGCCAAGCCTGGTTGTAATTTGTAACCATTTTCTA  
TTTGTGCAACTCTGTAAATATGTGTTTAAACAAATGTAATATTTGTACAAGATACACTGGAGAACAAAGGGAA

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**FIGURE 158B**

CTCAAGATTCTTCCAGCCACATGTCACCTGTAGGTAGAAGTAAACTCTGCAGTGCAGCTTCTGCTCTTGGCCCCCT  
CTGGCCAGGGCCCCCTGTGGCTTCCTGCACACTGGACAGGTGACTGTATGGTAGAGACTGTGATCTGGGAACTTTT  
TGCTGTACAAATCTGTTTAAAAAAAAAAAAAAGTAACTCATTGAATTAA

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**FIGURE 159**

MAIQFRSLFPLALPGMLALLGWWFFSRKKGHVSSHDEQQVEAGAVQLRADPAIKEPLPVEDVCPKVVSTPPSVT  
EPPEKELSTVSKLPAEPPALLQTHPPCRRSESSGILPNTTDMRLRPGTRRDDSTKLELALTGGEAKSIPLECPLS  
SPKGVLFSSKSAEVCKQDSPFSRVPRKVQPGYPVPAEKRSSGERARETGGAEGTGDAVLGEKVL EEALLSREHV  
LELENSKGP SLASLEGEEDKGKSSSSQVVG PVQEEYVAEKLPSRFIESAHTELAKDDAAPAPPVADAKAQDRGV  
EGELGNEESLDRNEEGLDRNEEGLDRNEESLDRNEEGLDRNEEIKRAAFQIISQVISEATEQVLATTVGKVAGRV  
CQASQLQGQKEESCVPVHQKT VLGPD TAEPATAEAAVAPPDAGLPLPGLPAEGSPPPKTYV SCLKSLLSSPTKDS  
KPNISAHHISLASCLALTTPSEELPDRAGILVEDATCVTCMSDSSQSVPLVASPGHCSDSFSTSGLED SCTETSS  
SPRDKAITPPLPESTVPFSNGVLKGELSDLGAEDGWTMDAEADHSGGSDRNSMDSVDSCCSLKKTESFQNAQAGS  
NPKKVDLIWEIEVPKHLVGRLIGKQGRYVSFLKQTS GAKIYISTLPYTQSVQICHIEGSQHHVDKALNLIGKKF  
KELNLTNIYAPPLPSLALPSLPM TSWLMLPDGITVEVIVVNQVNAGHLFVQQHTHPTFHALRSLDQQMYLCYSQP  
GIPTLPTPVEITVICAAPGADGAWWRAQVVASYEETNEVEIRYVDYGGYKRVKVDVLRQIRSD FVTLPFQGAEVL  
LDSVMPLSDDDQFSPEADAAMSEMTGNTALLAQVTSYSPTGLPLIQLWSVVGDEVVLINRSLVERGLAQWVDSYY  
TSL

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**FIGURE 160**

AACTGTGCGAACCAGACCCGGCAGCCTTGCTCAGTTCAGCATAGCGGAGCGGATCCGATCGGATCGGAGCACACC  
GGAGCAGGCTCATCGAGAAGGCGTCTGCGAGACCATGGAGAACGGATACACCTATGAAGATTATAAGAACACTGC  
AGAATGGCTTCTGTCTCATACTAAGCACCGACCTCAAGTTGCAATAATCTGTGGTTCTGGATTAGGAGGTCTGAC  
TGATAAATTAACCTCAGGCCCAGATCTTTGACTACAGTGAAATCCCCAACTTTCTCGAAGTACAGTGCCAGGTCA  
TGCTGGCCGACTGGTGTTTGGGTTCCCTGAATGGCAGGGCCTGTGTGATGATGCAGGGCAGGTTCCACATGTATGA  
AGGGTACCCACTCTGGAAGGTGACATTCCAGTGAGGGTTTTCCACCTTCTGGGTGTGGACACCCTGGTAGTCAC  
CAATGCAGCAGGAGGGCTGAACCCCAAGTTTGAGGTTGGAGATATCATGCTGATCCGTGACCATATCAACCTACC  
TGGTTTTAGTGGTCAGAACCCCTCTCAGAGGGCCCAATGATGAAAGGTTTGGAGATCGTTTTCCCTGCCATGTCTGA  
TGCCTACGACCGGACTATGAGGCAGAGGGCTCTCAGTACCTGGAAACAAATGGGGGAGCAACGTGAGCTACAGGA  
AGGCACCTATGTGATGGTGGCAGGCCCCAGCTTTGAGACTGTGGCAGAATGTCGTGTGCTGCAGAAGCTGGGAGC  
AGACGCTGTTGGCATGAGTACAGTACCAGAAGTTATCGTTGCACGGCACTGTGGACTTCGAGTCTTTGGCTTCTC  
ACTCATCACTAACAAGGTCATCATGGATTATGAAAGCCTGGAGAAGGCCAACCATGAAGAAGTCTTAGCAGCTGG  
CAAACAAGCTGCACAGAAATTGGAACAGTTTGTCTCCATTCTTATGGCCAGCATTCCACTCCCTGACAAAGCCAG  
TTGACCTGCCTTGAGTTCGTCTGGCATCTCCACACAAGACCCAAGTAGCTGCTACCTTCTTTGGCCCCTTGCTG  
GAGTCATGTGCCTCTGTCTTAGGTTGTAGCAGAAAGGAAAAGATTCTGTCTTACCTTTCCCACTTTCTTCT  
ACCAGACCTTCTGGTGCCAGATCCTCTTCTCAAAGCTGGGATTACAGGTGTGAGCATAGTGAGACCTTGGCGCT  
ACAAAATAAAGCTGTTCTCATTCTGTTCTTTCTTACACAAGAGCTGGAGCCCGTGCCCTACCACACATCTGTGG  
AGATGCCCAGGATTTGACTCGGGCCTTAGAACTTTGCATAGCAGCTGCTACTAGCTCTTTGAGATAATACATTCC  
GAGGGGCTCAGTTCTGCCTTATCTAAATCACCAGAGACCAAACAAGGACTAATCCAATACCTCTTGGA

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**FIGURE 161**

MENGYTYEDYKNTAEWLLSHTKHRPQVAIICGSGLGGLTDKLTQAQIFDYSEIPNFPRSTVPGHAGRLVFGFLNG  
RACVMMQGRFHMIEGYPLWKVTFFPVRVFHLLGVDTLVVTNAAGGLNPKFEVGDIMLIRDHINLPGFSGQNPLRGP  
NDERFGDRFPAMSDAYDRTMRQALSTWKQMGEQRELQEGTYVMVAGPSFETVAECRVLQKLGADEVGMSTVPEV  
IVARHCGLRVFGFSLITNKVIMDYESLEKANHEEVLAAGKQAAQKLEQFVSILMASIPLPKAS

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**FIGURE 162**

CCGCCGCCACCGCTACCGAGGCCGAGCGGAGCCGTTAGCGCCGCGCCGCCGCCGCTCCCGCCCCGCCCCGGAGCA  
GCCCCGGGCCCCGCCCGCCGCATCCAGATTTTTGAAAAATACAATGTCTAATGGTTATGAAGACCACATGGCCGA  
AGACTGCAGGGGTGACATCGGGAGAACGAATTTGATCGTCAACTACCTCCCTCAGAACATGACCCAGGATGAGTT  
ACGAAGCCTGTTTACGAGCATTGGTGAAGTTGAATCTGCAAACTTATTCGGGATAAAGTAGCAGGACACAGCTT  
GGGCTACGGCTTTGTGAACCTACGTGACCGCGAAGGATGCAGAGAGAGCGATCAACACGCTGAACGGCTTGAGGCT  
CCAGTCAAAAACCATTAAGGTGTCGTATGCTCGCCCGAGCTCAGAGGTGATCAAAGACGCCAACTTGTACATCAG  
CGGGCTCCCGCGGACCATGACCCAGAAGGACGTAGAAGACATGTTCTCTCGGTTTGGGCGGATCATCAACTCGCG  
GGTCTCGTGGATCAGACTACAGGTTTGTCCAGAGGGGTTGCGTTTATCCGGTTTGACAAACGGTCGGAGGCAGA  
AGAGGCAATTACCAGTTTCAATGGTCATAAACCCCCAGGTTCTCTGAGCCCATCGCAGTGAAGTTTGCAGCCAA  
CCCCAACAGAACAAAAACGTGGCACTCTCTCGCAGCTGTACCACTCGCCAGCGCGACGGTTTCGGAGGCCCGT  
TCACCACCAGGCGCAGAGATTCAGGTTCTCCCCATGGGCGTCGATCACATGAGCGGGCTCTCTGGCGTCAACGT  
GCCAGGAAACGCCTCCTCCGGCTGGTGCATTTTCATCTACAACCTGGGGCAGGATGCCGACGAGGGGATCCTCTG  
GCAGATGTTTGGGCCGTTTGGTGCCGTCACCAATGTGAAAGTGATCCGCGACTTCAACACCAACAAGTGCAAAGG  
GTTTGGCTTTGTGACCATGACAACTATGAAGAAGCCGCGATGGCCATAGCCAGCCTGAACGGCTACCGCCTGGG  
GGACAAAATCTTACAGGTTTCCTTCAAAACCAACAAGTCCCACAAATTAACTCGCTCATGCTTTTTTTGTACGGAA  
TAGATAATTAAGAGTGAAGGAGTTGAACTTTTTCTTGTTAGTGTAACAATCATTTTGCGCCAATTTTACAAGTG  
TTTGCTTTGTCTGAATGAGAAGTGAGAAG



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**FIGURE 163**

MSGYEDHMAEDCRGDIGRTNLIVNYLPQNMTQDELRSLEFSSIGEVESAKLIRDKVAGHSLGYGFVNYVTAKDAE  
RAINTLNGLRLQSKTIKVSYPSPSEVIKDANLYISGLPRTMTQKDVEDMFSRFGRIINSRVLVDQTTGLSRGVA  
FIRFDKRSEAEAAITSFNGHKPPGSSEPIAVKFAANPNQKNVALLSPLYHSPARRFGGPVHHQAQRFRFSPMGV  
DHMSGLSGVNVPGNASSGWCIFIYNLGQDADEGILWQMFPGFVAVTNVKVIRDFNTNKCKGFGFVTMTNYEEAAM  
AIASLNGYRLGDKILQVSFKTNKSHK

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**FIGURE 164A**

[illegible]

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**FIGURE 164B**

GGGAGTGTTCCTTGCGCCATTAACCATGTAGTTTGTACCATCACTAAATGCTTGGAACAGTACACATGCACCACA  
ACAAAGGCTCATCAAACAGGTAAAGTCTCGAAGGAAGCGAGAACGAAATCTCTCATTGTGTGCCGTGTGGCTCAA  
AACCGAAAACAATGAAGCTTGGTTTTAAAGGATAAAGTTTTCTTTTTTGTTCCTCTCAGACTTTATGGATAAT  
GTGACCGGGTCTTATGCAAATTTCTATTTCTAAACTACTACTATGATATACAAGTGCTGTTGAGCATAATTAA  
ATAAAATGCTGCTGCTTTGACAGTAAAGAGAAGGAAGTATTCTGAAAAAAAC

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**FIGURE 165**

MESEQLFHRGYRNSYNSITSASSDEELLDGAGVIMDFQTSEDDNLLDGD TAVGTHYMTNGGSINSSTHLLDLL  
DEPIPGVGTYYDDFHTIDWVREKCKDRERHRRINSKKKESAWEMTKSLYDAWSGWL VVTLTGLASGALAGLIDIAA  
DWMTDLKEGICLSALWYNHEQCCWGSNETTFEERDKCPQWKTWAEIIIGQAEGPGSYIMNYIMYIFWALSFAFLA  
VSLVKVFAPYACGSGIPEIKTILSGFIIRGYLGKWTLMIKTITLVLAVASGLSLGKEGPLVHVACCCGNIFS YLF  
PKYSTNEAKKREVL SAASAAGVSVAFGAPIGGVLFSL EEVSYFPLKTLWRSFFAALVAAFVLR SINPFGNSRLV  
LFYVEYHTPWYLFELFPFILLGVFGGLWGAF FIRANIAWCRRRKSTKFGKYPVLEVIIVAAITAVIAFPNPYTRL  
NTSELIKELFTDCGPLESSSLCDYRNDMNASKIVDDIPDRPAGIGVYSAIWQLCLALIFKIIMTVFTFGIKVPSG  
LFIP SMAIGAIAGRIVGIAVEQLAYYHHDWFIFKEWCEVGADCITPGLYAMVGAAACLGGVTRMTVSLVVIVFEL  
TGGLEYIVPLMAAVMTSKWVGDAFGREGIYEAHIRLNGYPFLDAKEEFETHHTLAADV MRPRRNDPFLAVLTQD  
NMTVDDIENMINETS YNGFPVIMSKESQRLVGFALRRDLTIAIESARKKQEGIVGSSRVCFAQHTPSLPAESPRP  
LKLRSILDMSPF TVTDHTPMEIVVDIFRKLGLRQCLVTHNGRLLGIITKKDILRHMAQTANQDPASIMFN

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**FIGURE 166**

CACGAGGGAGCGCTAACGTCTTTCTGTCTCCCCGCGGTGGTGATGACGGTGAAAAGTGAAGGCTGCTAAGGGCACC  
CTCACTTACTCCAGGATGAGGGGCATGGTGGCAATTCTCATCGCTTTCATGAAGCAGAGGAGGATGGGTCTGAAC  
GACTTTATTTCAGAAGATTGCCAATAACTCCTATGCATGCAAACACCCTGAAGTTCAGTCCATCTTGAAGATCTCC  
CAACCTCAGGAGCCTGAGCTTATGAATGCCAACCCCTTCTCCTCCACCAAGTCCTTCTCAGCAAATCAACCTTGGC  
CCGTCTGTCGAATCCTCATGCTAAACCATCTGACTTTCACCTTCTTGAAAGTGATCGGAAAGGGCAGTTTTGGAAAG  
GTTCTTCTAGCAAGACACAAGGCAGAAGAAGTGTTCTATGCAGTCAAAGTTTTACAGAAGAAAGCAATCCTGAAA  
AAGAAAGAGGAGAAGCATATTATGTCGGAGCGGAATGTTCTGTTGAAGAATGTGAAGCACCCCTTTCCTGGTGGGC  
CTTCACTTCTCTTTCCAGACTGCTGACAAATTGTAATTTGTCTAGACTACATTAATGGTGGAGAGTTGTTCTAC  
CATCTCCAGAGGGAACGCTGCTTCTGGAACCAAGGGCTCGTTTCTATGCTGCTGAAATAGCCAGTGCCTTGGGC  
TACCTGCATTCACTGAACATCGTTTATAGAGACTTAAACCAGAGAATATTTTGCTAGATTACAGGGACACATT  
GTCCTTACTGATTTCCGACTCTGCAAGGAGAACATTGAACACAACAGCACAAACATCCACCTTCTGTGGCACGCCG  
GAGTATCTCGCACCTGAGGTGCTTCATAAGCAGCCTTATGACAGGACTGTGGACTGGTGGTGCCTGGGAGCTGTC  
TTGTATGAGATGCTGTATGGCCTGCCGCCCTTTTATAGCCGAAACACAGCTGAAATGTACGACAACATTCTGAAC  
AAGCCTCTCCAGCTGAAACCAAATATTACAAATTCCGCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAGG  
ACAAAGCGGCTCGGGGCCAAGGATGACTTCATGGAGATTAAGAGTCATGTCTTCTTCTCCTTAATTAAGTGGAT  
GATCTCATTAAATAAGAAGATTACTCCCCCTTTTAAACCAAATGTGAGTGGGCCCAACGAGCTACGGCACTTTGAC  
CCCGAGTTTACCGAAGAGCCTGTCCCCAACTCCATTGGCAAGTCCCCTGACAGCGTCTCTGTCACAGCCAGCGTC  
AAGGAAGCTGCCGAGGCTTTTCTAGGCTTTTCTATGCGCCTCCACGGACTCTTCTCTCTGAACCCCTGTTAGGG  
CTTGGTTTTTAAAGGATTTTATGTGTGTTTCCGAATGTTTATGTTAGCCTTTTGGTGGAGCCGCCAGCTGACAGGA  
CATCTTACAAGAGAATTTGCACATCTCTGGAAGCTTAGCAATCTTATTGCACACTGTTGCTGGAATTTTTTGAA  
GAGCACATTCTCCTCAGTGAGCTCATGAGGTTTTCAATTTTATTCTTCTTCCAACGTGGTGCTATCTCTGAAAC  
GAGCGTTAGAGTGCCGCCTTAGACGGAGGCAGGAGTTTCGTTAGAAAGCGGACCTGTTCTAAAAAAGGTCTCCTG  
CAGATCTGTCTGGGCTGTGATGACGAATATTATGAAATGTGCCTTTTCTGAAGAGATTGTGTTAGCTCCAAAGCT  
TTTCTATCGCAGTGTTTCAGTTCTTTATTTTCCCTTGTGGATATGCTGTGTGAACCGTCGTGTGAGTGTGGTAT  
GCCTGATCACAGATGGATTTTGTATAAGCATCAATGTGACACTTGACAGGACACTACAACGTGGGACATTGTTTG  
TTTCTTCCATATTTGGAAGATAAATTTATGTGTAGACTTTTTTGTAAAGATACGGTTAATAACTAAAATTTATTGA  
AATGGTCTTGCAATGACTCGTATTTCAGATGCCTAAAGAAAGCATTGCTGCTACAAATATTTCTATTTTTAGAAAG  
GGTTTTTATGGACCAATGCCCCAGTTGTGAGTCAGAGCCGTTGGTGTTTTTTCAATGTTTAAAATGTCACCTGTAA  
AATGGGCATTATTTATGTTTTTTTTTTTGCATTCTGATAATTGTATGTATTGTATAAAGAACGTCTGTACATTG  
GGTTATAACACTAGTATATTTAACTTACAGGCTTATTTGTAATGTAAACCACCATTTTAAATGTACTGTAATTAA  
CATGGTTATAATACGTACAATCCTTCCCTCATCCCATCACACAACTTTTTTGTGTGTGATAAACTGATTTTGGT  
TTGCAATAAAACCTTGAAAAATAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 167**

MTVKTEAAKGTLTYSRMRGMVAILIAFMKQRRMGLNDFIQKIANN SYACKHPEVQSILKISQPQEP ELMNANPSP  
PPSPSQQINLGPSSNPHAKPSDFHFLKVIGKGSFGKVLLARHKAEVVFYAVKVLQKKAILKKKEEKHIMSER NVL  
LKNVKHPFLVGLHFSFQTADKLYFVLDYINGGELFYHLQRERCFLEPRARFYAAETASALGYLHSLNIVYRDLKP  
ENILLDSQGHIVLTD FGLCKENIEHNSTTSTFCGTPEYLAPEVLHKQPYDRTVDWWCLGAVLYEMLYGLPPFY SR  
NTAEMYDNILNKPLQLKPNITNSARHLLEGLLQKDRTKRLGAKDDFMEIKSHVFFSLINWDDLINKKITPPFNPN  
VSGPNELRHFDPEFTEEPVPNSIGKSPDSVLVTASVKEAAEAFLGFSYAPPTDSFL

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**FIGURE 168**

CCGCCGGCCGGGGCGCCTGGCTGCACTCAGCGCCGGAGCCGGGAGCTAGCGGCCGCCGCCATGTCCCCACCAGACC  
GGCATCCAAGCAAGTGAAGATGTTAAAGAGATCTTTGCCAGAGCCAGAAATGGAAAGTACAGACTTCTGAAAATA  
TCTATTGAAATGAGCAACTTGTGATTGGATCATATAGTCAGCCTTCAGATTCTTGGGATAAGGATTATGATTCC  
TTTGTTTTACCCTGTGGAGGACAAACAACCATGCTATATATTATTCAGGTTAGATTCTCAGAATGCCCAGGGA  
TATGAATGGATATTCAATTGCATGGTCTCCAGATCATTCTCATGTTTCGTCAAAAAATGTTGTATGCAGCAACAAGA  
GCAACTCTGAAGAAGGAATTTGGAGGTGGCCACATTAAAGATGAAGTATTTGGAACAGTAAAGGAAGATGTATCA  
TTACATGGATATAAAAAATACTTGCTGTCACAATCTTCCCCTGCCCACTGACTGCAGCTGAGGAAGAACTACGA  
CAGATTAAAATCAATGAGGTACAGACTGACGTGGGTGTGGACACTAAGCATCAAACACTACAAGGAGTAGCATT  
CCCATTCTCGAGAAGCCTTTTCAGGCTTTGGAAAAATTGAATAATAGACAGCTCAACTATGTGCAGTTGGAAATA  
GATATAAAAAATGAAATTATAATTTTGCCCAACACAACAAATACAGAACTGAAAGATTTGCCAAAGAGGATTCCC  
AAGGATTTCAGCTCGTTACCATTCTTTCTGTATAAACATTTCCCATGAAGGAGACTATTTAGAGTCCATAGTTTTT  
ATTTATTCAATGCCTGGATACACATGCAGTATAAGAGAGCGGATGCTGTATTCTAGCTGCAAGAGCCGTCTGCTA  
GAAATTGTAGAAAGACAACACTACAAATGGATGTAATTAGAAAGATCGAGATAGACAATGGGGATGAGTTGACTGCA  
GACTTCCTTTATGAAGAAGTACATCCCAAGCAGCATGCACACAAGCAAAGTTTTGCAAAACCAAAAGGTCCTGCA  
GGAAAAGAGGAATTCGAAGACTAATTAGGGGCCAGCGGAACTGAAGCTACTACTGATTAAAGTCATCACATT  
AAACATTGTAATACTAGTTTTTTTAAAGTCCAGCTTTTAGTACAGGAGAAGTGAATCATTCCATGTTGATATAA  
AGTAGGGAAAAAATTGTACTTTTTTGGAAAAATAGCACTTTTCACTTCTGTGTGTTTTTAAATTAATGTTATAGA  
AGACTCATGATTTCTATTTTTTGAGTTAAAGCTAGAAAAGGGTTCAACATAATGTTTAATTTTGTACACTGTTTT  
CATAGCGTTGATTCCACACTTCAAATACTTCTTAAATTTTATACAGTTGGGCCAGTTCTAGAAAGTCTGATGTC  
TCAAAGGGTAACTTACTACTTTCTTGTGGGACAGAAAGACCTTAAATATTCATATTACTTAATGAATATGTTA  
AGGACCAGGCTAGAGTATTTTTCTAAGCTGGAACTTAGTGTGCCTTGGAAAAGCCGCAAGTTGCTTACTCCGAGT  
AGCTGTGCTAGCTCTGTGCAGACTGTAGGATCATGTCTGCACTTTTAGAAATAGTGCTTTATATTGCAGCAGTCT  
TTTATATTTGACTTTTTTTTTAATAGCATTAAATTTGCAGATCAGCTCACTCTGAACTTTAAGGGTACCAGATAT  
TTTCTATACTGCAGGATTTCTGATGACATTGAAAGACTTTAAACAGCCTTAGTAAATTATCTTTCTAATGCTCTG  
TGAGGCCAAACATTTATGTTTCAGATTGAAATTTAAATTAATATCATTCAAAGGAAACAAAAATGTTGAGTTTT  
AAAAATCAGGATTGACTTTTTTCTCAAACCATACATTTATGGGCAAATTGTGTTCTTTATCACTTCCGAGCAA  
ATACTCAGATTTAAATTAATTTAAAGTCTGGTACTTAACAGGCTAACGTAGATAAACACCTTAATAATCTCAG  
TTAATACTGTATTTCAAACACATTTAACTGTTTTCTAATGCTTTGCATTATCAGTTACAACCTAGAGAGATTTT  
GAGCCTCATATTTCTTTGATACTTGAAATAGAGGGAGCTAGAACCTTAATGTTTAATCTGTTAAACCTGCTGCA  
AGAGCCATAACTTTGAGGCATTTTCTAAATGAACTGTGGGGATCCAGGATTTGTAATTTCTTGATCTAAACTTTA  
TGCTGCATAAATCACTTATCGGAAATGCACATTTATAGTGTGAAGCACTCATTCTAAACCTTATTATCTAAGG  
TAATATATGCACCTTTAGAAATTTGTGTTTCAGAGTAAGTAAAGCATATTAGAATAATTGTGGGTTGACAGATTTT  
TAAATAGAAATTTAGAGTATTTGGGGTTTTGTTTGTTTACAAATAATCAGACTATAATATTTAAACATGCAAAAT  
AACTGACAATAATGTTGCACCTGTTTACTAAAGATATAAGTTGTTCCATGGGTGTACACGTAGACAGACACACAT  
ACACCCAAATTATTGCATTAAGAATCCTGGAGCAGACCATAGCTGAAGCTGTTATTTTCAGTCAGGAAGACTACC  
TGTCATGAAGGTATAAAATAATTTAGAAGTGAATGTTTTCTGTACCATCTATGTGCAATTATACTCTAAATTCC  
ACTACACTACATTAAAGTAAATGGACATTCCAGAATATAGATGTGATTATAGTCTTAAACTAATTATTATTAAAC  
CAATGATTGCTGAAAATCAGTGATGCATTTGTTATAGAGTATAAATCATCGTTTACAGTATGTTTTAGTTGGCAG  
TATCATACCTAGATGGTGAATAACATATTTCCAGTAAATTTATATAGCAGTGAAGAATTACATGCCTTCTGGTGG  
ACATTTTATAAGTGCATTTTATATCACAATAAAAAATTTTTTCTCTTTAAAAAACAAGAAAAA

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**FIGURE 169**

MSHQTGIQASEDVKEIFARARNGKYRLLKISIE NEQLVIGSYSQPSDSWDKDYDSFVLPLEDKQPCYILFR LDS  
QNAQGYEWIFIAWSPDHSHVRQKMLYAATRATLKKEFGGHIKDEVFGTVKEDVSLHGYKKYLLSQSSPAPLTAA  
EEELRQIKINEVQTDVGVDTKHQTLOGVAFPISREAFQALEKLNNRQLNYVQLEIDIKNEIIILANTTNTELKDL  
PKRIPKDSARYHFFLYKHSHEGDYLESIVFIYSMPGYTCSIRERMLYSSCKSRLLIVERQLQMDVIRKIEIDNG  
DELTADFLYEEVHPKQHAHKQSFAKPKGPAGKRGIRRLIRGPAETEATTD



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**FIGURE 170**

AGATAACAAGAGTAATCCACAGACTTAAAACATGAGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC  
TCCCAGCATGCCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA  
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAAACGAGTTACTCAGATCCTGCAAAGTCC  
TGCCTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAAGGCCACAACCCAACTGGATTACTAGC  
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGCCAT  
GGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAA  
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT  
AAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTTCTGAAGCTACAGCCTCCAATTTGGT  
GAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTCACTCC  
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTCATACACATCCATACCCTTGCAACAGCAGCTGT  
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA  
CCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGTTCTGGGACCAAGTTGTAAGGTGCTGGT  
ACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAAACATTAGAGGAGGCTTTTCATTATATTTTAAATGTGCAACT  
AGCCTGTGAGATTCAAGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTTCAGAA  
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA  
GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAG  
GCATCCTCTCATTCGAGAGAAGCCTAGGCACAAGAGTGTGTGGAATCCCAGCAACTGTGACTGCTTTTTCTCTT  
TGAAGACGATACAGTGCCACTCTCTCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAACAAGATGGCT  
GAACTACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCAA  
AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAAACACCTATCAAAAATTGAAGATCCAAATCA  
GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA  
CTTGAAAAACAGCAGGACCACAATCTCAGTTGCTTGTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT  
TGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCATTAGTGCATCTCACAGAAGGAGAACTTGAAGAGTA  
TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGATGCTGAGCAGGAATTACTCTCAGATGACGCTTCATC  
TGTTTCACAAATTCAGTCTCAAACCTCAGTCACCGCAAAATGTCCCTGAAAAATTAGAAGAAAACCATGAGCTGTT  
TTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGA  
TGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCC  
AGAGAAAATCGAAGAAGTCTGTACCTGAAGGCTCCCTTCAAATCGCCATCCAAGAAAAAGAAGAAATTCCG  
CACTCCTTCTTTTCTGAAAAAGAACAAAAAAGGAGAAAGTTGAGGCCTAATAAAGTCTTTTTATAATTATTA  
TTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAAATATGCAATGGTAGATCAGATTG  
GGGGATGTAGCAAACTGGACTTTAAGAACTGGAAGAGGTTTTACAAAAGAAAACTTTCAGATTCTCTCAT  
TTTATATGTCCAGAAATGGCTTTGAATTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTAT  
TATAATTCACCATAAACAGCTATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTGC  
CAGTGAGCAAGTGAGAATTTTTATTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTTATCATGAT  
TATTGACTATATTTTTGGAGTCCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAACTTCTAAGACAAGAA  
TCTATAGCATTAGTATACACTGGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCATTTGGAATTTTATTCA  
CAGTATAAAATTTCTCACCTGAAGTAACTTTGTTTGCCAAAAAGTTGTTTTAATAAACTATAATTTTTGAAAA  
CTTCCTTTTTTATTAGTTTAGAAAGCCCCTTATTTTTCAACAAAGGGGATTTTGTACACATAACATGGGTTATTT  
AGTTTAACTCTGGC

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**FIGURE 171**

MSSDASQGVITTPPPPSMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI  
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL  
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD  
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG  
ETLEEAHYIFNVQLACEIQVQALAGAGGVDNLHVLDLQKYKAFTYITVAASGGGGVNMGSHQKWKVGEIEFEGLM  
RTLDNLGYRTGYAYRHPLIREKPRHKSDEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNPNNTYMKVN  
VPEESRNETSPRTKITWMKAEDSSKVSOGTPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSQL  
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLTEGELEEYKRTIERKQOGLEDQELLSDDASSVSQIQSQTQS  
PQNVPEKLEENHELFSKSFISMEVPVMVNGKDDMHDVEDELAKRVSRLSTSTTIENTIEITIKSPEKIEEVLSP  
GSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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**FIGURE 172**

CCCGCCGCCCATGGAGCGCGCCGCGCCGTCGCGCCGGGTCCCGCTCCGCTGCTGCTGCTCGGCGGCCTTGCGCT  
GCTGGCGGCCGGAGTGGACGCGGATGTCCTCCTGGAGGCCTGCTGTGCGGACGGACACCGGATGGCCACTCATCA  
GAAGGACTGCTCGCTGCCATATGCTACGGAATCCAAAGAATGCAGGATGGTGCAGGAGCAGTGCTGCCACAGCCA  
GCTGGAGGAGCTGCACTGTGCCACGGGCATCAGCCTGGCCAACGAGCAGGACCGCTGTGCCACGCCCCACGGTGA  
CAACGCCAGCCTGGAGGCCACATTTGTGAAGAGGTGCTGCCATTGCTGTCTGCTGGGGAGGGCGGCCACGGCCCA  
GGGCCAGAGCTGCGAGTACAGCCTCATGGTTGGCTACCAGTGTGGACAGGTCTTCCGGGCATGCTGTGTCAAGAG  
CCAGGAGACCGGAGATTTGGATGTCGGGGGCCTCCAAGAAACGGATAAGATCATTGAGGTTGAGGAGGAACAAGA  
GGACCCATATCTGAATGACCGCTGCCGAGGAGGCGGGCCCTGCAAGCAGCAGTGCCGAGACACGGGTGACGAGGT  
GGTCTGCTCCTGCTTCGTGGGCTACCAGCTGCTGTCTGATGGTGTCTCCTGTGAAGATGTCAATGAATGCATCAC  
GGGCAGCCACAGCTGCCGGCTTGGAGAATCCTGCATCAACACAGTGGGCTCTTCCGCTGCCAGCGGGACAGCAG  
CTGCGGGACTGGCTATGAGCTCACAGAGGACAATAGCTGCAAGATATTGACGAGTGTGAGAGTGGTATTTCATAA  
CTGCCTCCCCGATTTTATCTGTGAGAATACTCTGGGATCCTTCCGCTGCCGACCCAAGCTACAGTGCAAGAGTGG  
CTTTATACAAGATGCTCTAGGCAACTGTATTGATATCAATGAGTGTGAGTATCAGTGCCCCGTGCCCTATTGG  
GCATACATGCATCAACACAGAGGGCTCCTACACGTGCCAGAAGAACGTGCCCAACTGTGGCCGTGGCTACCATCT  
CAACGAGGAGGGAACGCGCTGTGTTGATGTGGACGAGTGCGCGCCACCTGCTGAGCCCTGTGGGAAGGGACATCG  
CTGCGTGAACTCTCCCGGCAGTTTCCGCTGCGAATGCAAGACGGGTTACTATTTTGACGGCATCAGCAGGATGTG  
TGTCGATGTCAACGAGTGCCAGCGCTACCCCGGGCGCCTGTGTGGCCACAAGTGCGAGAACACGCTGGGCTCCTA  
CCTCTGCAGCTGTTCCGTGGGCTTCCGGCTCTCTGTGGATGGCAGGTCATGTGAAGACATCAATGAGTGCAGCAG  
CAGCCCCGTGAGCCAGGAGTGTGCCAACGTCTACGGCTCCTACCAGTGTTACTGCCGGCGAGGCTACCAGCTCAG  
CGATGTGGATGGAGTCACCTGTGAAGACATCGACGAGTGCGCCCTGCCACCGGGGGCCACATCTGCTCCTACCG  
CTGCATCAACATCCCTGGAAGCTTCCAGTGCAGCTGCCCCCTCGTCTGGCTACAGGCTGGCCCCCAATGGCCGCAA  
CTGCCAAGACATTGATGAGTGTGTGACTGGCATCCACAACCTGCTCCATCAACGAGACCTGCTTCAACATCCAGGG  
CGCGTTCGCTGCTGGCCTTCGAGTGCCCTGAGAACTACCGCCGCTCCGCAGCCACCCGCTGTGAGCGCTTGCC  
TTGCCATGAGAATCGGGAGTGCTCCAAGCTGCCTCTGAGAATAACCTACTACCACCTCTCTTTCCCCACCAACAT  
CCAAGCGCCCCGCGTGTTTTCCGCATGGGCCCCCTCCAGTGCTGTCCCCGGGGACAGCATGCAGCTGGCCATCAC  
CGGCGGCAATGAGGAGGGCTTTTTACCAACCCGGAAGGTGAGCCCCACAGTGGGGTGGTGGCCCTCACCAAGCC  
TGTCCCCGAGCCCAGGACTTGCTCCTGACCGTCAAGATGGATCTCTCTCGCCACGGCACCGTCAGCTCCTTTGT  
GGCCAAGCTTTTCATCTTTGTGTCTGCAGAGCTCTGAGCACTCGCTTCGCGTCGCGGGGTCTCCCTCCTGTTGCT  
TTCTTAACCTGCCCTCCGGGGTTAATAAAGTCTTAGCAAGCGTGGGACACAGTG

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**FIGURE 173**

MERAAPSRRVPLPLLLLGGALLAAGVDADVLLLEACCADGHRMATHQKDCSLPYATESKECRMVQEQCCHSQLEE  
LHCATGISLANEQDRCATPHGDNASLEATFVKRCCHCCLLGRAAQAQGSCEYSLMVGYYQCGQVFRACCVKSQET  
GDL DVGG LQETDKIIEVEEEQEDPYLNDRCRGGGPCKQQCRDTGDEVVCSCFVGYYQLLSDGVSCEQDVNECITGSH  
SCLGESCINTVGSFRCQRDSSCGTGYELTEDNSCKDIDECESGIHNCCLPDFICQNTLGSFRCRPKLQCKSGFIQ  
DALGNCIDINECLSIAPCPIGHTCINTEGSYTCQKNVPNCGRGYHLNEEGTRCVDVDECAPPAEPCGKGHRCVN  
SPGSFRCECKTGYFFDGI SRMCVDVNECQRYPGRLCGHKCENTLGSYLCSCSVGFRLSVDGRSCEDINECSSSPC  
SQECANVYGSYQCYCRRGYQLSDVDGVTCEQDIDECALPTGGHICSYRCINIPGSFQCSCPSSGYRLAPNGRNCQD  
IDECVTGIHNCSINETCFNIQGAFRCLAFECPENYR RSAAT

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**FIGURE 174**

AGTCAAGATGGAGGAGTACGCGGAGAGCCTTGCCCATGGCGAATTGTGGATGACTGTGGTGGGGCCTTTACGAT  
GGGTACCATTTGGTGGTGGTATCTTTCAAGCAATCAAAGGTTTTCGCAATTCTCCAGTGGGAGTAAACCACAGACT  
ACGAGGGAGTTTGACAGCTATTAAAACCAGGGCTCCACAGTTAGGAGGTAGCTTTGCAGTTTGGGGAGGGCTGTT  
TTCCATGATTGACTGTAGTATGGTTCAAGTCAGAGGAAAGGAAGATCCCTGGAATCCATCACAAGTGGTGCCTT  
AACGGGAGCCATACTGGCAGCAAGAAATGGACCAGTGGCCATGGTTGGGTCAGCCGCAATGGGTGGCATTCTCCT  
AGCTTTAATTGAAGGAGCTGGTATCTTGTGACAAGATTGCGCTCTGCACAGTTTCCCAATGGTCCTCAGTTTGC  
AGAAGACCCCTCCAGTTGCCTTCAACTCAGTTACCTTCCTCACCTTTTGGAGACTATCGACAATATCAGTAGGA  
CTTCTTTCCTAGGATTTCTTTAACAGAACGAGTTGTGGTTCGAGAAGGATTTCAGAAGATCAAGTTACAGTCTGT  
TTTTAAAACCATAGGTGGGACAGCTATGGCCAATAGGCTATAAAGAGACATTTAGCACTTTTTTCTATTTAAAGG  
ACAAGCGGGGAAGGGTGCTAAAAGATAATACGTTTATTTATTCACACTTGAATTGCATTTGTGATCAAAATAAA  
TGTTTAAATCGCTAAAGGAAAATACAGTAAGTGCTTGAAAGATGAAGGACCAAAAGGCCAAAAACAGTGAAATA  
TGATCATCATCTCTTGCGGACTTCTCTGCCTGGTTTTGTGTGTTCTGTTATTCAAACAATAAAAAGCTGGTGGAA  
CTTACTCTTCTTTTAAGATAAGTTGTAGACTTCGATGTTTCATGCTCATGTACTTCAAATAATGCATGTTTTAT  
AGTTAGTCCCTCATCACTTGAAGTGAAGTCTGAGAATTATGCAGAGTCAACATGGATCATTTTCACAGTGAGATGC  
TTTATGGATTGAAGGATATGGTAAAATGTTTATAGTTTACTTTGAAAGTAAAATATACTATGTCTTGGTTTTGAG  
GATATTGGATACAAAACCTCTCTTCCCTTTAGGGCTACTGAGTCTTGATTCCCTGATCATCAGAAATTTACCAGAAA  
CAACTTGCTTCCAATATACCCAATTCTATATGAAGAATTCATGGAGAGTGTACTGGCACTGGAAGAGTTTGTGT  
TTCTTGATGCTTGAAAATAAAGTATGTACTGTTTTGAATGTGTTCCAAGTCCTCTGCATAAACGATGTATTTTG  
GGGTCTGGTTGGGCCTGGAAAATGGATGAGCACTTCAGAACAGGTCATTTTCCTGATATTGGAAGTGACATGTGG  
CCCTATAGGAGGCATGATGTTAGTTAATTACACATTTGCCTACATCTGTGGGAAATGGAGAACAAAGCCATGTGG  
GTACTGTAAACACACGTTTATCTTTTGGCCCAATGCCATACATATGGTAGGCATTTAATTACTGATTGTGTTTGG  
ATAATTTGGGAATTTTCGACTGTGGTAAAATATACATAAAATAATACTTATTAAAAA

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**FIGURE 175**

MEEYAREPCPWRIVDDCGGAFTMGTIGGGIFQAIKGFRNSPVGVNHLRGSITAIKTRAPQLGGSFAVWGGLFSM  
IDCSMVQVRGKEDPWNSITSGALTGAILAARNGPVAMVGSAAAMGGILLALIEGAGILLTRFASAQFPNGPQFAED  
PSQLPSTQLPSSPFGDYRQYQ

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**FIGURE 176**

CGGCGAGCGAGCACCTTCGACGCGGTCCGGGGACCCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGCCCCA  
GGCCTCGCGCTGCCCGGCGGGCTCCTCGTGTCCCACTCCCGGCGCACGCCCTCCCGCGAGTCCCGGGCCCCCTCCC  
GCGCCCCCTCTTCTCGGCGCGCGCGCAGCATGGCGCCCCCGCAGGTCTCGCGTTTCGGGCTTCTGCTTGCCGCGGC  
GACGGCGACTTTTGCCGCAGCTCAGGAAGAATGTGTCTGTGAAAACCTACAAGCTGGCCGTAAACTGCTTTGTGAA  
TAATAATCGTCAATGCCAGTGTACTTCAGTTGGTGCACAAAATACTGTCAATTTGCTCAAAGCTGGCTGCCAAATG  
TTGGTGATGAAGGCAGAAATGAATGGCTCAAACTTGGGAGAAGAGCAAAACCTGAAGGGGCCCTCCAGAACAA  
TGATGGGCTTTATGATCCTGACTGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCACGTG  
CTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCTCTGAGCGAGTGAGAAC  
CTACTGGATCATCATTGAACTAAAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGCACT  
TCAGAAGGAGATCACACGCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGTATGAGAATAATGTTAT  
CACTATTGATCTGGTTCAAAATTCCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTATTT  
TGAAAAAGATGTTAAAGGTGAATCCTTGTTTTATTCTAAGAAAAATGGACCTGACAGTAAATGGGGAACAACCTGGA  
TCTGGATCCTGGTCAAACCTTTAATTTATTATGTTGATGAAAAAGCACCTGAATTCCTCAATGCAGGGTCTAAAAGC  
TGGTGTATTGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGCTGGTTATTTCCAGAAA  
GAAGAGAATGGCAAAGTATGAGAAGGCTGAGATAAAGGAGATGGGTGAGATGCATAGGGAACCTCAATGCATTAACT  
ATATAATTTGAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTGTGTGCGTGGGACGAAG  
ACATCTTTGAAGGTCATGAGTTTGTAGTTTAAACATCATATATTTGTAATAGTGAAACCTGTACTCAAATATAA  
GCAGCTTGAAACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCAGATCTAATGTAAAATC  
CAGAACTTGACTCCATCGTTAAATTTATTTATGTGTAACATTCAAATGTGTGCATTAAATATGCTTCCACAGTA  
AAATCTGAAAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACTTGAGTCTTGACATACATACTTTTTTAT  
GAGCTATGAAATAAAACATTTTAAACTG

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**FIGURE 177**

MAPPQVLAFGLLLAAATATFAAAQEEVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAAKCLVMKAEMNG  
SKLGRRRAKPEGALQNNDGLYDPDCDESGLFKAKQCNGTSTCWCVNTAGVRRTDKDTEITCSERVRTYWIIIELKH  
KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNVITIDLQNSSQKTQNDVDIADVAYYFEKDVKGESL  
FHSKKMDLTVNGEQDLDPGQTLIYYVDEKAPEFSMQGLKAGVIAVIVVVVIAVVAGIVVLVISRKKRMAKYEKA  
EIKEMGEMHRELNA



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**FIGURE 178**

GAATTC CGCTAGACTAAGTTGGTC ATGATGCAGAAGCTACTCAAATGCAGTCGGCTTGTCTGGCTCTTGCCCTC  
ATCCTGGTTCTGGAATCCTCAGTTCAAGGTTATCCTACGCAGAGAGCCAGGTACCAATGGGTGCGCTGCAATCCA  
GACAGTAATTCTGCAAACCTGCCTTGAAGAAAAAGGACCAATGTTGAACTACTTCCAGGTGAATCCAACAAGATC  
CCCCGTCTGAGGACTGACCTTTTTCCAAAGACGAGAATCCAGGACTTGAATCGTATCTTCCCACTTTCTGAGGAC  
TACTCTGGATCAGGCTTCGGCTCCGGCTCCGGCTCTGGATCAGGATCTGGGAGTGGCTTCCTAACGGAAATGGAA  
CAGGATTACCAACTAGTAGACGAAAGTGATGCTTTCCATGACAACCTTAGGTCTCTTGACAGGAATCTGCCCTCA  
GACAGCCAGGACTTGGGTCAACATGGATTAGAAGAGGATTTTATGTTA TAAAAAGAGGATTTTCCCACCTTGACAC  
CAGGCAATGTAGTTAGCATATTTTATGTACCATGGTTATATGATTAATCTTGGGACAAAGAATTTTATAGAAATT  
TTTAAACATCTGAAAAAGAAGCTTAAGTTTTATCATCCTTTTTTTTCTCATGAATTCTTAAAGGATTATGCTTTA  
ATGCTGTTATCTATCTTATTGTTCTTGAAAATACCTGCATTTTTTGGTATCATGTTCAACCAACATCATTATGAA  
ATTAATTAGATTCCCATGGCCATAAAATGGCTTTAAAGAATATATATATATTTTTTAAAGTAGCTTGAGAAGCAAA  
TTGGCAGGTAATATTTTCATACCTAAATTAAGACTCTGACTTGGATTGTGAATTATAATGATATGCCCTTTTTCTT  
ATAAAAAACAAAAAAAAAATAATGAAACACAGTGAATTTGTAGAGTGGGGTATTTGACATATTTTACAGGGTGGA  
GTGTACTATATACTATTACCTTTGAATGTGTTTGCAGAGCTAGTGGATGTGTTTGTCTACAAGTATGATTGCTGT  
TACATAACACCCCAAATTAACCTCCCAAATTAACACAGTTGTGCTGTCAATACCTCATACTGCTTTACCTTTTT  
TTCCTGGATATCTGTGTATTTTCAAATGTTACTATATATTAAAGCAGAAATATAACC

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**FIGURE 179**

MMQKLLKCSRLVLALALILVLESSVQGYPTQRARYQWVRCNPDSNSANCLEEKGPMFELLPGESNKIPRLRTDLF  
PKTRIQDLNRIFPLSEDYSGSGFGSGSGSGSGSGSGFLTEMEQDYQLVDESDAFHDNLRSLDRNLPSDSQDLGQH  
GLEEDFML

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**FIGURE 180**

ATGGCCCTGTCCACTGAGCATCTCCCGCCACACAGAAACCCGCCAGCCGGGGCCACCGACCCACCCCCTGCC  
TGGAAACTTAAGGAGGCCGAGCTGTGGGGAGCTCAGAGCTGAGATCCTACAGGAGTCCAGGGCTGGAGAGAAAA  
CCTCTGCGAGGAAAGGGAAGGAGCAAGCCGTGAATTTAAGGGACGCTGTGAAGCAATCATGGATGCAATGAAGAG  
AGGGCTCTGCTGTGTGCTGTGTGTGGAGCAGTCTTCGTTTCGCCAGCCAGGAAATCCATGCCCGATTTCAG  
AAGAGGAGCCAGATCTTACCAAGGTTGCAGCGAGCCAAGGTGTTTCAACGGGGGCACCTGCCAGCAGGCCCTGTA  
CTTCTCAGATTTCTGTGTGCCAGTGCCCCGAAGGATTTGCTGGGAAGTGTGTGAAATAGATACCAGGGCCACGTG  
CTACGAGGACCAGGGCATCAGCTACAGGGGCACGTGGAGCACAGCGGAGAGTGGCGCCGAGTGCACCAACTGGAA  
CAGCAGCGCGTTGGCCCAGAAGCCCTACAGCGGGCGGAGGCCAGACGCCATCAGGCTGGGCCTGGGGAACCACAA  
CTACTGCAGAAACCCAGATCGAGACTCAAAGCCCTGGTGCTACGTCTTTAAGGCGGGGAAGTACAGCTCAGAGTT  
CTGCAGCACCCCTGCCTGCTCTGAGGGAACAGTGACTGCTACTTTGGGAATGGGTGAGCCTACCGTGGCAGCGA  
CAGCCTCACCGAGTCGGGTGCCCTCCTGCCTCCCGTGGAATTCATGATCCTGATAGGCAAGGTTTACACAGCACA  
GAACCCAGTGCCAGGCACTGGGCCTGGGCAAACATAATTACTGCCGGAATCCTGATGGGGATGCCAAGCCCTG  
GTGCCACGTGCTGAAGAACCGCAGGCTGACGTGGGAGTACTGTGATGTGCCCTCCTGCTCCACCTGCGGCCTGAG  
ACAGTACAGCCAGCCTCAGTTTCGCATCAAAGGAGGGCTCTTCGCCGACATCGCCTCCCACCCCTGGCAGGCTGC  
CATCTTTGCCAAGCACAGGAGGTGCGCCGAGAGCGGTTCTGTGCGGGGGCATACTCATCAGCTCCTGCTGGAT  
TCTCTCTGCCGCCCCTGCTTCCAGGAGAGGTTTCCGCCCCACCACCTGACGGTGATCTTGGGCAGAACATACCG  
GGTGGTCCCTGGCGAGGAGGAGCAGAAATTTGAAGTCGAAAAATACATTGTCCATAAGGAATTCGATGATGACAC  
TTACGACAATGACATTGCGCTGCTGCAGCTGAAATCGGATTTCGTCCCGCTGTGCCAGGAGAGCAGCGTGGTCCG  
CACTGTGTGCCCTTCCCCCGGCGGACCTGCAGCTGCCGGACTGGACGGAGTGTGAGCTCTCCGGCTACGGCAAGCA  
TGAGGCCTTGTCTCCTTTCTATTCCGAGCGGCTGAAGGAGGCTCATGTCAGACTGTACCCATCCAGCCGCTGCAC  
ATCACAACATTTACTTAACAGAACAGTCAACGACAACATGCTGTGTGCTGGAGACACTCGGAGCGGCGGGCCCCA  
GGCAAACCTGCACGACGCTGCCAGGGCGATTCCGGAGGCCCCCTGGTGTGTCTGAACGATGGCCGCATGACTTT  
GGTGGGCATCATCAGCTGGGGCCTGGGCTGTGGACAGAAGGATGTCCCGGTGTGTACACCAAGGTTACCAACTA  
CCTAGACTGGATTTCGTGACAACATGCGACCGTAGACCAGGAACACCCGACTCCTCAAAGCAAATGAGATCCCGCC  
TCTTCTTCTTCAGAAGACACTGCAAAGGCGCAGTGCTTCTCTACAGACTTCTCCAGACCCACCACACCGCAGAAG  
CGGGACGAGACCCTACAGGAGAGGGAAGAGTGCATTTTCCAGATACTTCCCATTTTGGAAAGTTTTAGGACTTG  
GTCTGATTTTCAAGTACTCTGTGAGATGGGAAGACATGAATGCACACTAGCCTCTCCAGGAATGCCTCCTCCCTG  
GGCAGAAAGTGGCCATGCCACCCTGTTTTTTCAGCTAAAGCCCCAACCTCCTGACCTGTCACCGTGAGCAGCTTTGGA  
AACAGGACCACAAAAATGAAAGCATGTCTCAATAGTAAAAGATAACAAGATCTTTCAGGAAAGACGGATTGCATT  
AGAAATAGACAGTATATTTATAGTCACAAGAGCCCAGCAGGGCCTCAAAGTTGGGGCAGGCTGGCTGGCCCGTCA  
TGTTCTCTCAAAGCACCCCTGACGTCAAGTCTCCTTCCCCTTTCCCCACTCCCTGGCTCTCAGAAGGTATTCCTT  
TTGTGTACAGTGTGTAAAGTGTAATCCTTTTTCTTTATAAACTTTAGAGTAGCATGAGAGAATTGTATCATTTG  
AACAAC TAGGCTTCAGCATATTTATAGCAATCCATGTTAGTTTTTACTTTCTGTTGCCACAACCCTGTTTTATAC  
TGACTTAATAAATTCAGATATATTTTTTACAGTTTTTTTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 181**

MDAMKRGLCCVLLLCGAVFVSPSQEIHARFRRGARSYQGCSEPRCFNGGTCQQALYFSDFVCQCPEGFAGKCCEI  
DTRATCYEDQGISYRGTWSTAESGAECTNWNSSALAQKPYSGRRPDAILGLGNHNYCRNPD RDSKPWCYVFKAG  
KYSSEFCSTPACSEGNDCYFGNGSAYRGTHSLTESGASCLPWNSMILIGKVYTAQNPSAQALGLGKHNYCRNPD  
GDAKPWCHVLKNRRLTWEYCDVPSCSTCGLRQYSQPQFRIKGGLFADIASHPWQAAIFAKHRRSPGERFLCGGIL  
ISSCWILSAAHCFQERFPPHHLTVILGRTYRVVPGEQQFEVEKYIVHKEFDDDTYDNDIALQLKSDSSRCAQ  
ESSVVRTVCLPPADLQLPDWTECELSGYGKHEALSPFYSERLKEAHVRLYPSSRCTSQHLLNRTVTDNMLCAGDT  
RSGGPQANLHDACQDSSGGPLVCLNDGRMTLVGIISWGLGCGQKDVPGVYTKVTNYLDWIRDNMRP

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**FIGURE 182**

CCCAGGCGCAGCCAATGGGAAGGGTCGGAGGCATGGCACAGCCAATGGGAAGGGCCGGGGCACCAGCCAATGG  
GAAGGGCCGGGAGCGCGCGCGCGGGAGATTTAAAGGCTGCTGGAGTGAGGGGTCGCCCCGTGCACCCTGTCCCAG  
CCGTCTGTCTGGCTGCTCGCTCTGCTTCGCTGCGCCTCCACTATGCTCTCCCTCCGTGTCCCGCTCGCGCCCA  
TCACGGACCCGAGCAGCTGCAGCTCTCGCCGCTGAAGGGGCTCAGCTTGGTCGACAAGGAGAACACGCCGCCGG  
CCCTGAGCGGGACCCGCGTCTGGCCAGCAAGACCCGCGAGGAGGATCTTCCAGGAGCCCACGGAGCCGAAAACCTA  
AAGCAGCTGCCCCCGCGTGGAGGATGAGCCGCTGCTGAGAGAAAACCCCCCGCGCTTTGTTCATCTTCCCCATCG  
AGTACCATGATATCTGGCAGATGTATAAGAAGGCAGAGGCTTCCTTTTGGACCGCCGAGGAGGTTGACCTCTCCA  
AGGACATTCAGCACTGGGAATCCCTGAAACCCGAGGAGAGATATTTTATATCCCATGTTCTGGCTTTCTTTGCAG  
CAAGCGATGGCATAAGTAAATGAAAACCTTGGTGGAGCGATTTAGCCAAGAAGTTCAGATTACAGAAGCCCGCTGTT  
TCTATGGCTTCCAAATTGCCATGGAAAACATACATTCTGAAATGTATAGTCTTCTTATTGACACTTACATAAAAG  
ATCCCAAAGAAAAGGAATTTCTCTTCAATGCCATTGAAACGATGCCTTGTGTCAAGAAGAAGGCAGACTGGGCCT  
TGCGCTGGATTGGGGACAAAGAGGCTACCTATGGTGAACGTGTTGTAGCCTTTGCTGCAGTGGAAGGCATTTTCT  
TTTCCGGTTCTTTTGCCTCGATATTCTGGCTCAAGAAACGAGGACTGATGCCTGGCCTCACATTTTCTAATGAAC  
TTATTAGCAGAGATGAGGGTTTACACTGTGATTTTGTCTGCTGATGTTCAAACACCTGGTACACAAACCATCGG  
AGGAGAGAGTAAGAGAAATAATTATCAATGCTGTTCCGATAGAACAGGAGTTCCTCACTGAGGCCTTGCTGTGA  
AGCTCATTGGGATGAATTGCACTCTAATGAAGCAATACATTGAGTTTGTGGCAGACAGACTTATGCTGGAACCTGG  
GTTTTAGCAAGGTTTTTCAAGTAGAGAACCCATTTGACTTTATGGAGAATATTTCACTGGAAGGAAAGACTAACT  
TCTTTGAGAAGAGAGTAGGCGAGTATCAGAGGATGGGAGTGATGTCAAGTCCAACAGAGAATTCTTTTACCTTGG  
ATGCTGACTTCTAAATGAAGTGAAGATGTGCCCTTACTTGGCTGATTTTTTTTTTCCATCTCATAAGAAAAATCA  
GCTGAAGTGTACCAACTAGCCACACCATGAATTGTCCGTAATGTTTCAATTAACAGCATCTTTAAACTGTGTAGC  
TACCTCACAACCAGTCTGTCTGTTTATAGTGTGGTAGTATCACCTTTTGCCAGAAGGCCTGGCTGGCTGTGAC  
TTACCATAGCAGTGACAATGGCAGTCTTGGCTTTAAAGTGAGGGGTGACCCTTTAGTGAGCTTAGCACAGCGGGA  
TTAAACAGTCCTTTAACCAGCACAGCCAGTTAAAGATGCAGCCTCACTGCTTCAACGCAGATTTTAAATGTTTAC  
TTAAATATAAACCTGGCACTTTTACAAACAAATAAACATTGTTTTGTACTCACGGCGGCGATAATAGCTTGATTTA  
TTTGGTTTCTACACCAAATACATTCTCCTGACCACTAATGGGAGCCAATTCACAATTCACTAAGTGACTAAAGTA  
AGTTAAACTTGTGTAGACTAAGCATGTAATTTTTTAAGTTTTATTTTAAATGAATTAATAATTTTGTAAACCACTT  
TAAAGTCAGTCTCTGTGTATACCTAGATATTAGTCAGTTGGTGCCAGATAGAAGACAGGTTGTGTTTTTATCCTGT  
GGCTTGTGTAGTGTCTGGGATTCTCTGCCCCCTCTGAGTAGAGTGTTGTGGGATAAAGGAATCTCTCAGGGCAA  
GGAGCTTCTTAAAGTTAAATCACTAGAAATTTAGGGGTGATCTGGGCCTTCATATGTGTGAGAAGCCGTTTCATTT  
TATTTCTCACTGTATTTTCCCTCAACGTCTGGTTGATGAGAAAAAATCTTGAAGAGTTTTTCATATGTGGGAGCTA  
AGGTAGTATTGTAAATTTCAAGTCATCCTTAAACAAAATGATCCACCTAAGATCTTGCCCTGTAAAGTGGTGA  
AATCAACTAGAGGTGGTTCCCTACAAGTTGTTTCACTTCTAGTTTTGTTTGGTGTAAGTAGGTTGTGTGAGTTAATTC  
ATTTATATTTACTATGTCTGTTAAATCAGAAATTTTTTATTATCTATGTTCTTCTAGATTTTACCTGTAGTTTCAT  
ACTTCAGTCACCCAGTGTCTTATTCTGGCATTGTCTAAATCTGAGCATTGTCTAGGGGGATCTTAAACTTTAGTA  
GGAAACCATGAGCTGTTAATACAGTTTCCATTCAAATATTAATTTCAGAATGAAACATAATTTTTTTTTTTTTTTT  
TGAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCGCGATTTTGGCTCACTGTAACCTCCATCTCC  
TGGGTTCAAGCAATTCCTGTCTCAGCCTCCCTAGTAGCTGGGACTGCAGGTATGTGCTACCACACCTGGCTAA  
TTTTTGTATTTTTTAGTAGAGATGGAGTTTCACCATATTGGTCAGGCTGGTCTTGAACCTCCTGACCTCAGGTGATC  
CACCCACCTCGGCCTCCCAAAGTGCTGGGGATTGCAGGCGTGATAAACAAATATCTTAATAGGGCTACTTTGAA  
TTAATCTGCCTTTATGTTTGGGAGAAGAAAGCTGAGACATTGCATGAAAGATGATGAGAGATAAATGTTGATCTT  
TTGGCCCCATTTGTTAATTGTATTAGTATTTGAACGTCGCTCTGTTTATTGTTAGTTTTCTTCATCATTTATTG  
TATAGACAATTTTTAAATCTCTGTAATATGATACATTTTCTATCTTTTAAAGTTATTGTTACCTAAAGTTAATCC  
AGATTATATGGTCTTATATGTGTACAACATTAAATGAAAGGCTTTGTCTTGCAATTGTGAGGTACAGGCGGAAG  
TTGGAATCAGGTTTTAGGATCTGTCTCTCATTAGCTGAATAATGTGAGGATTAACCTCTGCCAGCTCAGACCAT  
TTCCTAATCAGTTGAAAGGGAAACAAGTATTTAGTCTCAAAATTGAATAATGCACAAGTCTTAAGTGATTAATA  
TAAACTGTTCTTATGTC

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**FIGURE 183**

MLSLRVPLAPITDPQQLQLSPLKGLSLVDKENTPPALSGTRVLASKTARRIFQEPTTEPKTKAAAPGVEDEPLLRE  
NPRRFVIFPIEYHDIWQMYKKAESFWTAEVDLSKDIQHWESLKPEERYFISHVLAFFAASDGIVNENLVERFS  
QEVQITEARCFYGFQIAMENIHSEMYSLIDITYIKDPKEREFLFNAIETMPCVKKKADWALRWIGDKEATYGERV  
VAFAAVEGIFFSGSFASIFWLKKRGLMPGLTFSNELISRDEGLHCDFACLMFKHLVHKPSEERVREIIINAVRIE  
QEFLTEALPVKLI GMNCTLMKQYIEFVADRLMLELGF SKVFRVENPFD FMENISLEGKTNFFEKRVGEYQRMGVM  
SSPTENSFTLDADF

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**FIGURE 184A**

CCCCTCACCCCACTCAACTGCCCCGGGCCCCCGCGCGCGCGGCCGCCCTCCACTCACCCTGTGTGGCCCCGCT  
CCCCCTCTCCCCACCAGGCGAGCAGGCGAGCGGGCAGAGCCCCGCGCGGAGGTCGGCGCGGCTCCGGGGTTCATG  
GTGACGAGGCGGCGGCCGCTCGAGCCCAGCGGCGGGCGGGCGGGGAGCTGGGGCGCGGGCCCCGGGCGCCCTCTC  
CCAGAGCGCGGGGCCGGGCGGGCGCGCCAGGCAGCGGCTGCGAGCGCCCCCGCGCCGCGCCCCCGCGCC  
CCCCGCGCCGCGCCCCCGCGCGCTTGGCTTGCGGGGGGCCGGGCTGCGGGCGGCGCCGCGCCGCGCACCCATG  
GACGGCCCCGGCCATCATCACCAGGTGACCAACCCCAAGGAGGACGAGGGCCGGTTGCCGGGCGCGGGCGAGAAA  
GCCTCCCAGTGCAACGTCAGCTTAAAGAAGCAGAGGAGCCGAGCATCCTTAGCTCCTTCTTCTGCTGCTTCCGT  
GATTACAAATGTGGAGGCCCTCCACCCAGCAGCCCCAGTGTGCTTCCGCCACTGGTGGAGGAGAATGGTGGGCTT  
CAGAAGCCACCAGCTAAGTACCTTCTTCCAGAGGTGACGGTGTGCTTACTATGGAAGAAATGTGTGGTCATTGAT  
TTAGATGAAACATTGGTGCACAGTTCGTTTAAAGCCTATTAGTAATGCTGATTTTATTGTTCCGGTTGAAATCGAT  
GGAATATACATCAGGTGTATGTGCTGAAGCGGCCACATGTGGACGAGTTCCTCCAGAGGATGGGGCAGCTTTTT  
GAATGTGTGCTCTTTACTGCCAGCTTGGCCAAGTATGCAGACCCTGTGGCTGACCTCCTAGACCGCTGGGGTGTG  
TTCCGGGCCCCGCTCTTCAGAGAATCATGTGTTTTTTCATCGTGGGAACCTACGTGAAGGACCTGAGTCGCCTTGGG  
CGGGAGCTGAGCAAAGTGATCATTGTTGACAATTCCCCTGCCTCATACATCTTCCATCCTGAGAATGCAGTGCCT  
GTGCAGTCCCTGGTTCGATGACATGACGGACACGGAGCTGCTGGACCTCATCCCCTTCTTTGAGGGCCTGAGCCGG  
GAGGACGACGTGTACAGCATGCTGCACAGACTCTGCAATAGGTAGCCCTGGCCTCTGCCTGCCTCCCGCCTGTGC  
ACTCTGGAACCTCTGGCCTCAGGGGACCTGCCTGTCTCAGCTCCCTGGGAGCTGAAAGTGAGGATACTCCGTGC  
TCCAGGCCACAGGGTGAATGTGGCCATGCCTACCTGTTTTGTTTTTTTAAAGAACAGAAACAATATTTTAAAGA  
ACTCTTTTTAAGAAATTTTATAAAGGGACATGCATTTTACTGGGTTTGCTTTTCTTAAACATACCAAAAAAGAAA  
AAAATAGAAAAAAGCTGATCTCTATCAGACTCTTCAACTGTCTCCCTCCAAGCAGACCACCTG  
TCCCCCTTCTATCCCAGCTCAGAGCAGCTGACCAACTCAGAATCTCTTCTACAGGATGAAAGTGCCTTTTGAA  
TGTTATTTTAAAGCCGAGAGTTAATTTTCTACACAACATATTTCCAGACATCTTTTAGTCTTTTATTGTCTTAG  
ATACTATAAGAAGATGAACATGACAATTTTCTAGAACCTGGTAGCGTGTGTGTGTGGTTGGCGGGGGGTGCTGAG  
GGAGGGGAGTGAGTCACAGGAGCCTGTCCCCAACAGGTGTGACTGCTCTGACAACCTGTGGCATGCTGCAGGGT  
CAGGCTCCTGATAGGAGGATTTTATGACTATGTCATTGTCTCCACTCATTTTTGACCCAGTTTGGAAATGTAICTG  
CAATTGTGTGGCTCAACACTTTAGGAAACATAGATTATTTTATATTATTCTGATGGTGACAAGTTTGTCTT  
GAGGTACATTTTCTCCTTGAAAAGTGACATCCTGTCACTTCTGCTCTCACTACTGCCATACATTTGTGTTTT  
TTTGTGTTATTGTTTGGGTAGAGCAGTTACAAGAAACCCTAAACCCTTGATATATAAAGAAATCTGTTTATTG  
ATTTTTAAATCTTTCTTTCCAAAAGCTGGATACACATGGAGCTGTTTGGGAATTTTCTTGTGCTACCGCGCT  
GCCACCAAATGGAATTGACCAGCGGCTGTACACTGTTCTTTGCCACTGTGCCTATGCTCAGAATATGCTCACTG  
CTAAGCTACAACTCGGACAGGGTCAGAAACAGAGGTGTCCCATCCCATTGCAGCCTCCACCACCTGTAACCCCT  
TCCTGGCATTGGCCACTGAAGGGTACAAAGGCAAAAGGACCACAGCACCCTTAGGTGTAGCATGGATTTTAAAC  
TGCAGTCAGTATCAGATCCTGTTTGATAAATAAGCTGACTGTTCTCTCTTGAGAACCTGTGGCCTCAACCAGCCA  
CCAAGCTGATGTGGCCCAAGCTCCATCTCTTGGTCTTCTCCTTTGAAGCACAGCCTATTTCTGAGCCAAGGGTTG  
GGGAAGCCTGTCTAGATGTGGGACTCATTGCCCCAAACCAGGGAGAGGAAGAGCTCCACAGGGAGAGCCAGGC  
TCTCTTTGCAGCCTTTCCAGTTTGGTGTTTAAAGCAGTGCCATGTTCTTGTGTTGACAACAAGACAGTCTGTAA  
AGTATTGCTCTTAAAAACAATTAAGAACCCCTTTTATATTGGCACCATTGCCTTAGTCCTCTGTGGGTTGGTC  
TTCAGCCAGCATTCTGGTGGGAGTGACTGGCATTAAACAAGACTGGAAATCGGGGGTCAAAGTAAATATCTTTGT  
TTTGCTTTTCAATCAAAAGTAATGAAGCCAGCTGCCAATTACATCCTCCCAACAGCACTTTGGTCTGTGACTGCT  
GTGTGATATTCAAGGGAAGTAGTATTAGGGGGTAAACAGGTCTCCAGCATTCTGAGTGTTCAAACCAGTA  
ATCCACATGCCAATTCAAATAGAACAGCCCCCTTGCTAGATATTACCACAGATAATGACAGTACATGGTAGAACTG  
CCCATGCCACAAATATTTATTTGGAAAAGTAGTCATTAAATGAACCCACTGCCTTAAATGTCTTGAATGTTGCAG  
TCAAGTGTCTGTCTGTGTTGATATCCACACAGAATTAGGCCCTAATGAGAGCCTTAGACCCTCAACCATGCCCC  
CTTCGTTGGCATCACAGGGCCTTATTTGGAAGAGCGGGGCAAAGAGGATGGAAATCATAAAATATTTTCATGGGAA  
TCGAACCTAGGGATAGTGCTCCACTTCTGACGATGGAGTGAAGACACTTGGCAGACTTGAGCCAGACACTTCACC  
TAGTAGTTCTGAACTGTGAGCACCCTGCACTAAGCCAGTGCAGGAGCTGTTAGGGACGGGCCCAGCTCCTGCA  
CACGGACACAGAATGTCTGGAGAGGGCAGCAGGCCTCTGAGGGTCTGGAATCTGTGCCACCTTATTTGACCACA  
CTCCAAAATCTGTTTTTTATTTTAAACCCTTGAATCTGCTTTATGTACATAATCAAATATCTATATCTATATCTA

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**FIGURE 184B**

TATCTATATCTATATATTTTTAATCATCTACATGTAAATGAAGCAATAGAATTCTAACATAAGGCCAAGAAATGA  
GACGAATGTTTGGGGTTTATGTTTTTTAAGGTAAATACGGGTATTGTTTTTAATTATTACCATGTATTAAATTGT  
GGGCTTTGAAACCTAATGAAACCTGTTAGCCACTTCTCTGTGCCATATACTTCCCATGTTACCAAAATACGCCCCA  
ACTCTTTAGCCAAAAGAGAACXCTGACCTCCTGAGTTTCCATGCTCCTTTCTGTCAGGTTTAAATGTAGTCTTCT  
GGAGAAGTATTTTTGACATTGAGCTCTGGGACAGGACACCTTGGGTTTGTGGACTGCAGCCCACTATGATGTTAT  
TACTTCTCTGGCCAGGCCTCCAGTGGAAGTGCACAGGCACTCCCAATGTTGTTAATGCTCTGTCTTCCATTTGTT  
CTGGAATCCTACGTGTTGGTCTGTGGTTCCATGCATTAGCTGTTTGTAATAATGCATTTGCATACTGAAAAAGG  
AATGCCACCTGCCACAGTTGATGGTGAGAAGCTCCTTTGACGTGGTGCAATTTTGATGAGATGTCTCTGGGGACA  
CGAGGATGCCCTAATGATGCTGACTTGTTCATGGTTGCAGCATTGAACTTTTGGTGTTAAAAAAAAAACCTGTA  
AGTCTGTAACCTGGCAACATTTTACAACCCTGTATTTTTAAAGATGGCTTTCTAATAAAAAATCCAGAACCACAC  
AGCCCTATGGTCAAACAATCCTACGTTTGTGCCTCTGCTTTTAAAGGTGCTGTGCTGGACAGTTGGCATGCCAGG  
GTTTCGAGAAGAGTGAATGGCTTGACGTCCTTGACGTTAACTGTGCAAAATTGGCTGGCTGCCTCTGTTCCCTACTG  
TACTGTAACCTTTGATCATGTCTGTTCCCTATTCCATTCTCCAGGAGCTTCTCTGCAGACTGACACACCCTCCCCC  
ACCCCGGGTAGTGGAGATGCTGGTGTCTGGGTAGTCATGGATTCTGCTGACATTTGAATGTGATAACAATCCA  
GCATTACTTAGGAAATGCTACATGCGGAATGTGCACGTTTCCAGGGGCGAGTATTGTCAATCAAAGGTTTGCAA  
TGATTTCCCTCCTGCCAAAAATAACATGTGAACTGC



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**FIGURE 185**

MVTRRRPLEPSGGGRRELGRGPGPFLLPERGAGRRARP GSGCERPPAPRPRAPRAAPPRAWLAGGRACGRPPRRAP  
MDGPAIITQVTNPKEDGR LPGAGEKASQCNVSLKKQRSRSILSSFFCCFRDYNVEAPPPSSPSVLPPPLVEENG  
LQKPPAKYLLPEVTVL DYGKKCVVIDLDETLVHSSFKPISNADFIVPVEIDGTIHQVYVLKRPHVDEFLQRMGQL  
FECVLFTASLAKYADPVADLLDRWGVFRARLFRESCVFHRGNYVKDLSRLGRELSKVIIVDN SPASYIFHPENAV  
PVQSWFDDMTDT ELLDLIPFFEGLSREDDVYSMLHRLCNR

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**FIGURE 186**

GGACACACACAGGAGGAGGAGGTTTGAGCTGCTGCCGCCGCCGCTTCTGTCTGCTCGTAGTGTGGAGTCGGGACTG  
GAGCTGCTGCCCGGGCGACGCCGGGATCTTTGTCTGCTAGCTCCCGGCCCTTCTGCCCCGCCGCTTCCCTCAGT  
CAGCGTTGCCACTCCTCTCCGGCCGGGCGCCCTGCCTCCATTCTCTGCTCTCTGTCCACCACACACAGGCC  
CCCCGATCATGGATCCGGGCGAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGAGCAGCAGCGGCAGCAGCA  
GCAGCGACTCGGCGCCTGACTGCTGGGACCAGGCGGACATGGAAGCCCCCGGGCCGGGCCCTTGCGGCGGCGGCG  
GCTTCCCTGGCGGCGGCGGCCGAGGCCAGCGGGAGAACCTCAGCGCGGCTTCAGCCGGCAACTCAACGTCAAC  
GCCAAGCCCTTCGTGCCCAACGTCCACGCCGCCGAGTTCTGTCCGTCCTTCTTGCGGGGCCCGGCAGCGCCGCCA  
CCCCCAGCTGGCGGCGCCGCCAATAACCACGGAGCCGGCAGCGGCGCGGGAGGCCGTGCGGCACCTGTGGAATCC  
TCTCAAGAGGAACAGTCATTGTGTGAAGGTTCAAATTCAGCTGTTAGC**AT**GGAACTTTCAGAACCTATTGTAGAA  
AATGGAGAGACAGAAATGTCTCCAGAAGAATCATGGGAGCACAAAGAAGAAATAAGTGAAGCAGAGCCAGGGGGT  
GGTTCCTTGGGAGATGGAAGGCCGCCAGAGGAAAGTGCCCATGAAATGATGGAGGAGGAAGAGGAAATCCCCAAA  
CCTAAGTCTGTGGTTGCACCGCCAGGTGCTCCTAAGAAAGAGCATGTAAATGTAGTATTTCATTGGGCACGTAGAT  
GCTGGCAAGTCAACCATTGGAGGACAAATAATGTATTGACTGGAATGGTTGACAAAAGGACGCTTGAAAAGTAT  
GAAAGAGAAGCTAAAGAGAAAAACAGAGAAACTTGGTACTTGTCTTGGGCCTTAGACACAAATCAGGAAGAACGA  
GACAAGGGTAAAAACAGTAGAAGTGGGTCTGTCCATTATTTGAAACCGAAAAGAAGCATTTACAAATTCTAGATGCC  
CCTGGCCACAAGAGTTTTGTCCCAAATATGATTGGTGGTGCCTCTCAAGCTGATTGGCTGTGCTGGTAATCTCA  
GCCAGGAAAGGAGAGTTTGAAACTGGATTGAAAAAGGAGGACAGACAAGAGAACATGCAATGTTGGCAAAGACA  
GCAGGTGTAAACACCTAATTGTGCTAATTAATAAGATGGATGATCCAACAGTAAATTGGAGCAATGAGAGATAT  
GAAGAATGTAAGGAGAAACTAGTGCCATTTTTGAAAAAAGTTGGCTTCAATCCCAAAGGACATTCACTTTATG  
CCCTGCTCAGGACTTACTGGAGCAAATCTCAAAGAGCAGTCGGATTCTGTCTTGGTACATTGGATTACCGTTT  
ATTCCATATCTGGATAATTTGCCGAACCTTCAATAGATCAGTTGATGGACCAATCAGGCTGCCAATTGTGGATAAG  
TACAAGGATATGGGCACTGTGGTCTCTGGGAAAGCTGGAATCAGGATCTATTTGTAAAGGCCAGCAGCTTGTGATG  
ATGCCAAACAAGCACAAACGTGGAAGTTCTTGGAATACTTTCCGATGATGTAGAGACTGATACCGTAGCCCCAGGT  
GAAAACCTCAAATCAGACTGAAAGGAATTGAAGAAGAGGAGATTCTTCCAGGGTTTATACTTTGTGATCCTAAT  
AATCTTTGTCAATTCTGGACGCACATTTGATGCCAGATAGTGATTATAGAGCACAAATCCATCATCTGCCCAGGC  
TATAATGCGGTGCTGCATATTCATACCTGTATTGAGGAGGTGGAATAACAGCCTTAATCTGCTTGGTAGACAAA  
AAATCAGGAGAAAAAAGTAAGACCCGACCCCGTTTTGTGAAACAAGATCAAGTATGCATTGCTCGCTTAAGGACA  
GCAGGAACCATCTGCCTTGAGACCTTTAAAGACTTCCCTCAGATGGGTCTTTACCTTAAGAGATGAGGGTAAG  
ACCATTGCAATTGGAAAAGTTCTGAAACTGGTTCAGAGAAAAGAC**TA**AGCATTTTCTTGATGACCCTGCACAATA  
CTGTGAGGAAAATTGACTGCAGAAGCCTACTTCACACCGCCTTCTCTTATTTTCTGCCCATTGATAAACCTCTCC  
CCATATTTTGCAAAGAGGAAATTCACAGCAAAAGTCCACATTATGTGAGCTTTCTCATATTGAGAGCTCTGCTAT  
GCCACTGTTGAATTTTCCCAAGATTCTGTCCCTAGCCCTCACTTCAAACCTCTGCTTCCCTTGGACAGATTGCGC  
AATAGCTTTGTAAAGTATGTGGACATAATTGCCTACAATAATGAAAACCTACAGGAATTTTTTTATTTTTCATTT  
TCCCCTTAGGCATATTTAGTATTTTTCCCCCAGGCCAGATCATTTCGTGAGTGTGCGAGTGTGTGTGCACATGTTA  
CAAAGGCAACTACCATGTTAATAAAATATTCAATTTG

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**FIGURE 187**

MELSEPIVENGETEMSPESWEHKEEISEAEPGGGSLGDGRPPEESAHEMMEEEEEIPKPKSVVAPPGAPKKEHV  
NVVFIGHVDAGKSTIGGQIMYLTGMVDKRTLEKYEREAKEKNRETWYLSWALDTNQEERDKGKTVEVGRAYFETE  
KKHFTILDAPGHKSFVPMIGGASQADLAVLVISARKGEFETGFEGGGQTRHAMLAKTAGVKHLIVLINKMDDP  
TVNWSNERIEECKELVPFLKKVGFNPKKDIHFMPCSGLTGANLKEQSDFCPWYIGLPFIPYLDNLPNFNRSVDG  
PIRLPIVDKYKDMGTVVLGKLESGSICKGQQLVMPNKHNEVLGILSDDVETDTVAPGENLKIRLKGIEEEEIL  
PGFILCDPNNLCHSGRTFDAQIVIIEHKSIICPGYNAVLHIHTCIEEVEITALICLVDKKSGEKSKTRPRFVKQD  
QVCIARLRTAGTICLETFKDFPQMGRFTLRDEGKTIAIGKVLKLVPEKD

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**FIGURE 188**

GAAGGGCGGCGCGCTTAGGCAGGCGGTGGCGCGGCTGGAGTGCCGCGGGGAGGGCTGTGCCGGTTGCTTTCTGCA  
GCCGCATCTCGGCCAGCTCTCCTCGCCGTCCCCGGGGCGCTGTGCGTCTCCAGTCCGGGACCGAAGCCGCCTGCC  
GTAGCGGGCGGCCAGATCCGCGTCCCGCCTCAGCGGCCGGAGGACATGCGGGAGAGAGAATGAGCCAGAGGGACA  
CGCTGGTGCATCTGTTTGCCGGAGGATGTGGTGGTACAGTGGGAGCTATTCTGACATGTCCACTGGAAGTTGTAA  
AAACACGACTGCAGTCATCTTCTGTGACGCTTTATATTTCTGAAGTTCAGCTGAACACCATGGCTGGAGCCAGTG  
TCAACCGAGTAGTGTCTCCCGGACCTCTTCATTGCCTAAAGGTGATCTTGAAAAAGAAGGGCCTCGTTCCTTGT  
TTAGAGGACTAGGCCCCAATTTAGTGGGGGTAGCCCCCTCCAGAGCAATATACTTTGCTGCTTATTCAAACCTGCA  
AGGAAAAGTTGAATGATGTATTTGATCCTGATTCTACCCAAGTACATATGATTTTCAGCTGCAATGGCAGGTTTTA  
CTGCAATCACAGCAACCAACCCCATTTGGCTTATAAAGACTCGGTTACAGCTTGATGCAAGGAACCGCGGGGAAA  
GGCGAATGGGTGCTTTTGAATGTGTTTCGTAAAGTGATCAGACAGATGGACTAAAAGGATTTTATAGGGGCATGT  
CTGCTTCATATGCTGGTATATCAGAGACTGTTATCCATTTTGTATTATGAAAGTATAAAACAAAACTACTGG  
AATATAAGACTGCTTCTACAATGGAAAATGGTGAAGAGTCTGTGAAAGAAGCATCAGATTTTGTGGGAATGATGC  
TAGCTGCTGCCACCTCAAAAACCTTGTGCCACAACCTATAGCATATCCACATGTTGTAAGAACAAGACTACGTGAAG  
AGGGAACAAAATACAGATCTTTTTTTTTCAGACTCTATCTTTGCTTGTTCAAGAAGAAGGTTATGGGTCTCTTTATC  
GTGGTCTGACAACTCATCTAGTGAGACAGATTCCAAACACAGCCATTATGATGGCCACCTATGAATTGGTGGTTT  
ACCTACTCAATGGATAGCAGCACGAGGACTGCTGTACTGCAAAAAAGAAGACCAAAAGATTACAGTGGACCATG  
GGATACAGAAGCCAGCATGGCAGACAGAAGAAAAATAGTTTGGGAACATGTAACCTATTCTAAGTGAAGTTTGT  
TGTAAGGAATTATAGTAATCACACCACATTACTTGGCCTTTCGGTAATGTGAAAAAAGAAACCTCAGAGCC  
TCCAAGGAAATGCCTTTAGAAGCACTCCTCTCTCAAAATTGCCATTTTCTCTACCATGTCCCCCAGACACAGTTG  
GGTTTTGTTGATTTATGGCAGTCTTCTAAACAAAGCCATCCTTAATTTTACATACTGTATTGTAACCTATCCAAAG  
ATAGTATTGGCAGTCATAAATTTATAACTTCTGGCCTTTGTTTAATCCAGTAAATAACAGCAATGACAATGAG  
ATCGTCAGTATTATTTTACATTTCCCTGAGAGGACCTGGCACAATATTTTAAATTTAATTATTTGGCAGTAGTC  
ACTGTTTTTGACAACCAATGAAATAGCGTCTAAATATCTTGATATTTTTTAGCATCAAAATGTTTTGGTTTCCA  
CTGCTGACAGGTGCTTGTTGTTTAGCCTAATGTGGATATTTAAATTGTTAACATACCAAACACACATGGTAATAG  
TTTGGGACAAAATAACTAGTAAAATGTTGATTTCTCGGCTATTTCACTGACTGCGGCATGTCCTCGTGCTTCTC  
TGATTTTGTGGTACATGAATGAATGCATTTATCTTTTATGAGTACTAGTTACGAACCTGAATTATCACCTCT  
TTGTCATACTTAAGTATCATTTACATAAAGTGTAAGATTTTTTCACTTT

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**FIGURE 189**

MSQRDTLVHLFAGGCGGTVGAILTCPLEVVKTRLQSSSVTLYISEVQLNTMAGASVNRVVSPGPLHCLKVILEKE  
GPRSLFRGLGPNLVGVAPSRAIYFAAYSNCKEKLNDFDPDSTQVHMI SAAMAGFTAITATNP IWLIKTRLQLDA  
RNRGERRMGAFECVRKVYQTDGLKGFYRGMSASYAGISETVIHFVIYESIKQKLEYKTASTMENGEESVKEASD  
FVGMMMLAAATSKTCATTIAYPHVVTRLREEGTKYRSFFQTLSSLVQEEGYGSLYRGLTTHLVRQIPNTAIMMAT  
YELVVYLLNG

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**FIGURE 190**

CTGGTCCCGAGCACGAGCTGTGAGGGGATTCACTTGTGTGCGGAACCTCCTCGGAACCAATGGCGTCCCTTTCCCTT  
GCACCTGTTAACATCTTTAAGGCAGGAGCTGATGAAGAGAGAGCAGAGACAGCTCGTCTGACTTCTTTTATTGGT  
GCCATCGCCATTGGAGACTTGGTAAAGAGCACCTTGGGACCCAAAGGCATGGACAAAATTCTTCTAAGCAGTGGA  
CGAGATGCCTCTCTTATGGTAACCAATGATGGTGCCACTATTCTAAAAAACATTGGTGTTGACAATCCAGCAGCT  
AAAGTTTTAGTTGATATGTCAAGGGTTCAAGATGATGAAGTTGGTGATGGCACTACCTCTGTTACCGTTTTAGCA  
GCAGAATTATTAAGGGAAGCAGAATCTTTAATTGCAAAAAAGATTTCATCCACAGACCATCATAGCGGGTTGGAGA  
GAAGCCACGAAGGCTGCAAGAGAGGCGCTGTTGAGTTCCTGCAGTTGATCATGGTTCCGATGAAGTTAAATTCCGT  
CAAGATTTAATGAATATTGCGGGCACAACATTATCCTCAAACTTCTTACTCATCACAAAGACCACTTTACAAAG  
TTAGCTGTAGAAGCAGTTCTCAGACTGAAAGGCTCTGGCAACCTGGAGGCAATTTCATATTATCAAGAAGCTAGGA  
GGAAGTTTGGCAGATTCTTATTGATGAAGGCTTCTCTGTTGGATAAAAAAATTGGAGTAAATCAACCAAAACGA  
ATTGAAAATGCTAAAAATTCTTATTGCAAATACTGGTATGGATACAGACAAAATAAAGATATTTGGTTCCCGGGTA  
AGAGTTGACTCTACAGCAAAAGTTGCAGAAATAGAACATGCGGAAAAGGAAAAAATGAAGGAGAAAGTTGAACGT  
ATTCTTAAGCATGGAATAAAATTGCTTTATTAACAGGCAATTAATTTATAATTATCCTGAACAGCTCTTTGGTGCT  
GCTGGTGTCATGGCTATTGAGCATGCAGATTTTGCAGGTGTGGAACGCCTAGCTCTTGTCACAGGTGGTGAAATT  
GCCTCTACCTTTTGATCACCCAGAACTGGTGAAGCTTGGAAGTTGCAAACCTATCGAGGAAGTCATGATTGGAGAA  
GACAAACTCATTCACTTTTCTGGGGTTGCCCTTGGTGAGGCTTGTACCATTGTTTTGCGTGGTGCCACTCAACAA  
ATTTTAGATGAAGCAGAAAGATCATTGCATGATGCTCTTTGTGTTCTTGCGCAAACCTGTAAAGGACTCTAGAACA  
GTTTATGGAGGAGGCTGTTCTGAGATGTTGATGGCTCATGCTGTGACACAGCTTGCCAATAGAACACCAGGCAAA  
GAAGCTGTTGCAATGGAGTCTTATGCTAAAGCACTGAGAATGTTGCCAACCATCATAGCTGACAATGCAGGCTAT  
GACAGTGCAGACCTGGTGGCACAGCTCAGGGCTGCTCACAGTGAAGGCAATACCACTGCTGGATTGGATATGAGG  
GAAGGCACCATTGGAGATATGGCTATCCTGGGTATAACAGAAAGTTTTCAAGTGAAGCGACAGGTTCTTCTGAGT  
GCAGCTGAAGCAGCAGAGGTGATTCTGCGTGTGGACAACATCATCAAAGCGGCACCCAGGAAACGTGTCCCTGAT  
CACCACCCCTGTTAAGCAATCCCACGTGCTGTGATCTTTGGACCAGTTTCTAGCAAAGTTGTGTTTGAAAGATA  
CTCTATTAAAGAAGACTGTGGAATCTGTTTATCGGTGCCATTATATCCTTAAGTTTGGATATTTAGCTGACCTT  
CGCTTTAACATAGGTCTAATTTATTTGCCGTGTCATTTTCCATACAAATCAGTTGATTTAAAGGAGTTCATTTTCG  
CATACTGGGCATTAAAATAAAAAATTTGAACAATGAAAGGAAAAAAGGAGAAAAA

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**FIGURE 191**

MASLSLAPVNIFKAGADEERAETARLTSFIGAIAIGDLVKSTLGPKGMDKILLSSGRDASLMVTNDGATILKNIG  
VDNPAAKVLVDMSRVQDDEVGDGTTSVTVLAAELLREAESLIAKKIHPQTIIAGWREATKAAREALLSSAVDHGS  
DEVKFRQDLMNIAGTTLSSKLLTHHKDHFTKLAVEAVLRLKGSGNLEAIHIIKKLGGSLADSYLDEGFLLDKKIG  
VNQPKRIENAKILIAN TGMDTDKIKIFGSRVRVDSTAKVAEIEHAEKEKMKEKVERILKHGINCFINRQLIYNYP  
EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTFDHPPELVKLGSKLIEEVMIGEDKLIHFSGVALGEACTIVL  
RGATQQILDEAERSLHDALCVLAQTVKDSRTVYGGGCSEMLMAHAVTQLANRTPGKEAVAMESYAKALRMLPTII  
ADNAGYDSADLVAQLRAAHSEGNTTAGLDMREGTIGDMAILGITESFQVKRQVLLSAAEAAEVILRVDNIIKAAP  
RKRVPDHHPC

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**FIGURE 192A**

GAATCCAAGGGGGCCAGTTCTGCGTCTGCTCTTCTGCCTCTTGATCTCCGCCACCGTCTTCAGGCCAGGCCTT  
GGATGGTATACTGTAAATTCAGCATATGGAGATACCATTATCATACCTTGCCGACTTGACGTACCTCAGAAATCTC  
ATGTTTGGCAAATGGAATATGAAAAGCCCGATGGCTCCCCAGTATTTATTGCCTTCAGATCCTCTACAAAGAAA  
AGTGTGCAGTACGACGATGTACCAGAATACAAAGACAGATTGAACCTCTCAGAAAACACTACTTTGTCTATCAGT  
AATGCAAGGATCAGTGATGAAAAGAGATTTGTGTGCATGCTAGTAACCTGAGGACAACGTGTTTGAGGCACCTACA  
ATAGTCAAGGTGTTCAAGCAACCATCTAAACCTGAAATTTGTAAGCAAAGCACTGTTTCTCGAAACAGAGCAGCTA  
AAAAAGTTGGGTGACTGCATTTTCAAGAGACAGTTATCCAGATGGCAATATCACATGGTACAGGAATGGAAGAGTG  
CTACATCCCCCTTGAAGGAGCGGTGGTCATAATTTTTAAAAAGGAAATGGACCCAGTGACTCAGCTCTATACCATG  
ACTTCCACCCCTGGAGTACAAGACAACCAAGGCTGCATACAAATGCCATTACCTGCTCGGTGACATATTATGGA  
CCATCTGGCCAGAAAACAATTCATTCTGAACAGGCAGTATTTGATATTTACTATCTACAGAGCAGGTGACAATA  
CAAGTGCTGCCACCAAAAAATGCCATCAAAGAAGGGGATAACATCACTCTTAAATGCTTAGGGAATGGCAACCCCT  
CCCCCAGAGGAATTTTTGTTTTACTTACCAGGACAGCCCCGAAGGAATAAGAAGCTCAAATACTTACACACTGACG  
GATGTGAGGCGCAATGCAACAGGAGACTACAAGTGTTCCCTGATAGACAAAAAAGCATGATTGCTTCAACAGCC  
ATCACAGTTCACATTTTGGATTTGTCTTAAACCCAAGTGGAGAAGTGAAGTACTAGACAGATTGGTGATGCCCTACCC  
GTGTCAATGACACAATATCTGCTAGCAGGAATGCAACTGTGGTATGGATGAAAGATAACATCAGGCTTCGATCTAGC  
CCGTCATTTTCTAGTCTTCATTATCAGGATGCTGGAACCTATGTCTGCGAACTGCTCTGCAGGAGGTTGAAGGA  
CTAAAGAAAAGAGAGTCAATGACTCTCATTGTAGAAGGCAACCTCAAATAAAAAATGACAAAGAAAACCTGATCCC  
AGTGGACTATCTAAACAATAATCTGCCATGTGGAAGGTTTTCCAAAGCCAGCCATTCACTGGACAATTACTGGC  
AGTGGGAAGCGTCATAAACCAACAGAGGAATCTCCTTATATTAATGGCAGGTATTATAGTAAATTATCATTTCC  
CCTGAAGAGAATGTTACATTAACCTTGCACAGCAGAAAACCAACTGGAGAGAACAGTAACTCCTTGAATGTCTCT  
GCTATAAGTATTCCAGAACACGATGAGGCAGACGAGATAAGTGATGAAAACAGAGAAAAGGTGAATGACCAGGCA  
AACTAATTGTGGGAATCGTTGTTGGTCTCCTCCTTGCTGCCCTTGTGCTGGTGTCTGCTACTGGCTGTACATG  
AAGAAGTCAAAGACTGCATCAAACATGTAAACAAGGACCTCGGTAATATGGAAGAAAACAAAAAGTTAGAAGAA  
AACAATCACAAAACCTGAAGCCTAAGAGAGAACTGTCCTAGTTGTCCAGAGATAAAAAATCATATAGACCAATTGA  
AGCATGAACGTGGATTGTATTTAAGACATAAAACAAAGACATTGACAGCAATTCATGTTCAAGTATTAAGCAGTTC  
ATTCTACCAAGCTGTCACAGGTTTTAGAGAATTATCTCAAGTAAAAACAAATGAAATTTAATTACAAACAATAAG  
AACAAGTTTTGGCAGCCATGATAATAGGTCATATGTTGTGTTTGGTTCAATTTTTTTTTCCGTAAATGTCTGCACT  
GAGGATTTCTTTTTGGTTTTGCCTTTTATGTAAATTTTTTACGTAGCTATTTTTTATACACTGTAAGCTTTGTTCTG  
GGAGTTGCTGTTAATCTGATGTATAATGTAAATGTTTTTATTTCAATTGTTTATATGGATAATCTGAGCAGGTACA  
TTTCTGATTCTGATTGCTATCAGCAATGCCCCAACTTTCTCATAAGCACCTAAAACCCAAAGGTGGCAGCTTGT  
GAAGATTGGGGACACTCATATTGCCCTAATTAATAAACTGTGATTTTTTATCACAAAGGGAGGGGAGGCCGAGAGTCA  
GACTGATAGACACCATAGGAGCCGACTCTTTGATATGCCACCAGCGAACTCTCAGAAATAAATCACAGATGCATA  
TAGACACACATACATAATGGTACTCCCAAACCTGACAATTTTACCTATTCTGAAAAAGACATAAAACAGAATTTGG  
TAGCACTTACCTCTACAGACACCTGCTAATAAATTATTTTCTGTCAAAAGAAAAAACACAAGCATGTGTGAGAGA  
CAGTTTGGAAAAATCATGGTCAACATTTCCATTTTTCATAGATCACAATGTAAATCACTATAATTACAAATTGGTG  
TTAAATCCTTTGGGTTATCCACTGCCTTAAAATTATACCTATTTTCATGTTTAAAAAGATATCAATCAGAATTGGA  
GTTTTTAACAGTGGTTCATTATCAAAGCTGTGTTATTTTCCACAGAATATAGAATATATATTTTTTTTCGTGTGTGT  
TTTTGTAACTACCCTACAGATATTGAATGCACCTTGAGATAATTTAGTGTTTTAACTGATACATAATTTATCAA  
GCAGTACATGAAAGTGTAATAATAAAATGTCTATGTATCTTTAGTTACATTCAAATTTGTAACCTTATAAACATG  
TTTTATGCTTGAGGAAATTTTTAAGGTGGTAGTATAAATGGAACTTTTTGAAGTAGACCAGATATGGGCTACTT  
GTGACTAGACTTTTTAACTTTGCTCTTTCAAGCAGAAGCCTGGTTTCTGGGAGAACACTGCACAGTGATTTCTTT  
CCCAGGATTTACACAACCTTTAAAGGGAAGATAAATGAACATCAGATTTCTAGGTATAGAACTATGTTATTGAAAG  
GAAAAGGAAAACCTGGTGTGTTTCTTAGACTCATGAAATAAAAAATTATGAAGGCAATGAAAAATAAATTGAAA  
ATTAAAGTCAGATGAGAATAGGAATAATACTTTGCCACTTCTGCATTATTTAGAAACATACGTTATTGTACATTT  
GTAAACCAATTTACTGTCTGGGCAATAGTGACTCCGTTTAAATAAAGCTTCCGTAGTGCAATTGGTATGGATTAAAT  
GCATAAAATATCTTAGACTCGATGCTGTATAAAATATTATGGGAAAAAAGAAATACGTTATTTTGCCCTTAAACT  
TTTATTGAAGTTTTATTTGGCAGGAAAAAAATTTGAATCTTGGTCAACATTTAAACCAAGTAAAAAGGGGAAAAA  
CCAAAGTTATTTGTTTTGCATGGCTAAGCCATTCTGTTATCTCTGTAAATACTGTGATTTCTTTTTTATTTTCTC



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**FIGURE 192B**

TTTAGAATTTTGTTAAAGAAATTCTAAAATTTTAAACACCTGCTCTCCACAATAAATCACAAACACTAAAATAA  
AATTACTTCCATATAAATATTATTTTCTCTTTTGGTGTGGGAGATCAAAGGTTTAAAGTCTAACTTCTAAGATAT  
ATTTGCAGAAAGAAGCAACATGACAATAGAGAGAGTTATGCTACATTATTTCTTGGTTTCCACTTGCAATGGTTA  
ATTAAGTCCAAAAACAGCTGTCAGAACCTCGAGAGCAGAACATGAGAACTCAGAGCTCTGGACCGAAAGCAGAA  
AGTTTGCCGGAAAAAAAAAGACCACATTATTACCATCGATTTCAGTGCCTGGATAAAGAGGAAAGCTTACTTGTTT  
AATGGCAGCCACATGCACGAAGATGCTAAGAAGAAAAAGAATTCCAAATCCTCAACTTTTGAGGTTTCGGCTCTC  
CAATTTAACTCTTTGGCAACAGGAAACAGGTTTTGCAAGTTCAAGGTTCACTCCCTATATGTGATTATAGGAATT  
GTTTGTGGAAATGGATTAAACATACCCGTCTATGCCTAAAAGATAATAAGAAAACCTGAAATATGTCTTCAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 193**

GAATTCGGCACGAGCCGGGATCCTGTGTAGCGGCTGCAGAGGGTGCCGCCGCCCTAGGCGAAGTAGGGCCGTCCT  
GAGCGAAAGAACCGCCCCCAGCAGGAGCACCACCACGGCTTAGCAAAGAATCCCAGACCCCGCCCGGAAGGCAG  
CCGCACCAATGGAGTCTTCCAGTTCATCTAACTCTTATTTCTCCGTTGGCCCCAACCACTCCAGCGCTGTCTGTCT  
CCTCTACTCGAAGGAGCTCAAAAAGTGGGATGAGTTTGAAGATATTTTAGAAGAGAGGAGGCATGTCAGTGACTT  
GAAATTTGCAATGAAATGCTACACACCTCTTGTCTATAAGGGAATTACTCCATGTAAACCAATTGATATTAAATG  
TAGTGTTCTCAATTCTGAGGAGATTCAATTATGTCATTAAACAGCTTTCCAAGGAATCCCTTCAATCTGTGGATGT  
CCTCCGAGAGGAAGTGAGTGAGATCTTAGATGAAATGAGTCACAACTGCGTCTTGGAGCCATTTCGGTTTTGTGC  
CTTCACCTTGAGCAAAGTATTTAAACAAATTTTCTCGAAGGTGTGTGTAAATGAAGAAGGTATTTCAGAACTACA  
AAGAGCCATCCAGGAGCATCCTGTTGTTCTGCTGCCTAGTCAATCGAAGTTACATTGACTTCCTCATGTTGTCTTT  
TCTTCTATACAATTATGATTTGCCTGTGCCAGTTATAGCAGCAGGAATGGACTTCCTGGGAATGAAATGGTTGG  
TGAGCTGCTACGAATGTCGGGTGCCTTTTTTCATGCGGCGTACCTTTGGTGGCAATAAACTCTACTGGGCTGTATT  
CTCTGAATATGTAAAACTATGTTACGGAATGGTTATGCTCCTGTTGAATTTTTCCTCGAAGGGACAAGAAGCCG  
CTCTGCCAAGACATTGACTCCTAAATTTGGTCTTCTGAATATTGTGATGGAGCCATTTTTTAAAAGAGAAGTTTT  
TGATACCTACCTTGTCCCAATTAGTATCAGTTATGATAAGATCTTGGAAGAACTCTTATGTGTATGAGCTTCT  
AGGGGTTTCTAAACCAAAAGAGTCTACAACCTGGGTTGCTGAAAGCCAGAAAGATTCTCTGAAAATTTTGAAG  
CATCCATGTGTACTTTGGAGATCCTGTGTCACTTCGATCTTTGGCAGCTGGGAGGATGAGTCGGAGCTCATATAA  
CTTGGTTCCAAGATACATTCTCAGAAACAGTCTGAGGACATGCATGCCTTTGTCACTGAAGTTGCCTACAAAT  
GGAGCTTCTGCAAATGAAAACATGGTTTTGAGCCCTGGACCCTAATAGTTGCTGTTCTGCTTCAGAACCGGCC  
ATCCATGGACTTTGATGCTCTGGTGGAAAAGACTTTATGGCTAAAAGGCTTAACCCAGGCATTTGGAGGGTTTCT  
CATTTGGCCTGATAATAAACCTGCTGAAGAAGTTGTCCCGGCCAGCATTCTTCTGCATTCCAACATTGCCAGCCT  
TGTCAAAGACCAGGTGATTCTGAAAGTGGACTCCGGAGACTCGGAAGTGGTCGATGGGCATTATGCTCCAGCACAT  
CACTCTCCTCATGTGCTCAGCTTATAGGAACCAGCTGCTCAACATTTTTTGTGCGCCCATCCTTAGTAGCAGTAGC  
ATTGCAGATGACACCAGGGTTCAGGAAAGAGGATGTCTACAGTTGCTTTGCTTCCTACGTGATGTTTTTGCAGA  
TGAGTTCATCTTCTTCCAGGAAACACACTAAAGGACTTTGAAGAAGGCTGTACCTGCTTTGTAAAAGTGAAGC  
CATACAAGTGACTACGAAAGACATCCTAGTTACAGAGAAAGGAAATACTGTGTTAGAATTTTTAGTAGGACTCTT  
TAAACCTTTTGTGGAAAGCTATCAGATAATTTGCAAGTACCTTTTGTAGTGAAGAAGAGGACCACTTCAGTGAGGA  
ACAGTACTTGGCTGCAGTCAGAAAATTCACAAGTCAGCTTCTCGATCAAGGTACCTCTCAATGTTATGATGTATT  
ATCTTCTGATGTGCAGAAAAACGCCTTAGCAGCCTGTGTGAGGCTCGGAGTAGTGGAGAAGAAGAAGATAAATAA  
TAACTGTATATTTAATGTGAATGAACCTGCCACAACCAAATTAGAAGAAATGCTTGGTTGTAAGACACCAATAGG  
AAAACCAGCCACTGCAAACTTTAAATAATCAACAAATAGTTATGGAAAATTCGGTTCACGTAATTACTCTCATCGA  
AGGACTCATTACAACAAAACAGGGAAGTAAAGGAAGAGACACATCCTCTCATACTCCCTGAGACTCTGAGAACAGT  
GGACGCAGAGGGAAGAGATGATCATTGGAAGCAATCAGTTTACTCTTCCCCACCACAGTGGTTAAAAGGCGTTTG  
TATCTGACACTATGTGTGTGTTTTAAATAAACTTTTGGAAACATGAAAAAAAAAAAAAAAAAACTCGAG

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**FIGURE 194**

MESSSSSNSYFSVGPTSPSAVVLLYSKELKKWDEFEDILEERRHVSDLKFAMKCYTPLVYKGITPCKPIDIKCSV  
LNSEEIHYVIKQLSKESLQSDVLRREEVSEILDEMSHKLRGAI RFCAFTLSKVFKQIFSKVCVNEEGIQKLQRA  
IQEHPVVLPSHRSYIDFLMLSFLLYNYDLPVPVIAAGMDFLGMKMGVCELLRMSGAFFMRRTFGGNKLYWAVFSE  
YVKTMLRNGYAPVEFFLEGTRSRSAKTLTPKFGLLNIVMEPFFKREVFDTYLVPI SISISYDKILEETLYVYELLGV  
PKPKESTTGILLKARKILSENFGSIHVYFGDPVSLRSLAAGRMSRSSYNLVPRYIPQKQSEDMHAFVTEVAYKMEL  
LQIENMVLSPWTLIVAVLLQNRPSMDFDALVEKTLWLKGLTQAFGGFLIWPDNKPAEEVVPASILLHSNIASLVK  
DQVILKVDSGDSEVVDGLMLQHITLLMCSAYRNQLLNIFVRPSLVAVALQMTPGFRKEDVYSCFRFLRDVFADef  
IFLPGNTLKDFEEGCYLLCKSEAIQVTTKDILVTEKGNTVLEFLVGLFKPFVESYQIICKYLLSEEDHFSEEQY  
LAAVRKFQTSQLLDQGTSCYDVLSSDVQKNALAACVRLGVVEKKKINNNCIFNVNEPATTKLEEMLGCKTPIGKP  
ATAKL

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**FIGURE 195A**

TCAACACAGGACAATGCAAGCCCATGAGCTGTTCCGGTATTTTCGAATGCCAGAGCTGGTTGACTTCCGACAGTA  
CGTGCGTACTCTTCCGACCAACACGCTTATGGGCTTCGGAGCTTTTGCAGCACTCACCACCTTCTGGTACGCCAC  
GAGACCCAAACCCCTGAAGCCGCCATGCGACCTCTCCATGCAGTCAGTGGAAGTGGCGGGTAGTGGTGGTGCACG  
AAGATCCGCACTACTTGACAGCGACGAGCCCTTGGTGTATTTCTATGATGATGTCACAACATTATACGAAGGTTT  
CCAGAGGGGAATACAGGTGTCAAATAATGGCCCTTGTITAGGCTCTCGGAAACCAGACCAACCCTATGAATGGCT  
TTCATATAAACAGGTTGCAGAATTGTGCGAGTGCATAGGCTCAGCACTGATCCAGAAGGGCTTCAAGACTGCCCC  
AGATCAGTTCATTGGCATCTTTGCTCAAAATAGACCTGAGTGGGTGATTATTGAACAAGGATGCTTTGCTTATTC  
GATGGTGTATCGTTCACITTTATGATACCCTTGGAAATGAAGCCATCACGTACATAGTCAACAAAGCTGAACCTCTC  
TCTGGTTTTTGTGACAAGCCAGAGAAGGCCAAACTCTTATTAGAGGGTGTAGAAAATAAGTTAATACCAGGCCT  
TAAAATCATAGTTGTCTATGGATGCCTACGGCAGTGAAGTGGTGAACGAGGCCAGAGGTGTGGGGTGAAGTCAC  
CAGCATGAAGGCGATGGAGGACCTGGGAAGAGCCAAACAGACGGAAGCCCAAGCCTCCAGCACCTGAAGATCTTGC  
AGTAATTTGTTTCACAAGTGGAACTACAGGCAACCCCAAGGAGCAATGGTCACTCACCAGAACATAGTGAGCGA  
TTGTTTACGCTTTTGTGAAAGCAACAGAGAATACAGTCAATCCTTGCCAGATGATACTTTGATATCTTTCTTGCC  
TCTCGCCCATATGTTTGAGAGAGTTGTAGAGTGTGTAATGCTGTGTCATGGAGCTAAAATCGGATTTTTCCAAGG  
AGATATCAGGCTGCTCATGGATGACCTCAAGGTGCTTCAACCCACTGTCTTCCCCGTGGTTCCAAGACTGCTGAA  
CCGGATGTTTGACCGAATTTTCGGACAAGCAACACCACGCTGAAGCGATGGCTCTTGGACTTTGCCTCCAAGAG  
GAAAGAAGCAGAGCTTCGCAGCGGCATCATCAGAAACAACAGCCTGTGGGACCGGCTGATCTTCCACAAAGTACA  
GTCGAGCCTGGGCGGAAGAGTCCGGCTGATGGTGCAGGAGCCGCCCGGTGTCTGCCACTGTGCTGACGTTCCCT  
CAGAGCAGCCCTGGGCTGTGAGTTTTATGAAGGATACGGACAGACAGAGTGCAGTGCCTGCCGGGTGCTGCCTAACCAT  
GCCTGGAGACTGGACCGCAGGCCATGTTGGGGCCCCGATGCCGTGCAATTTGATAAACTTGTGTGATGTGGAAGA  
AATGAATTACATGGCTGCCGAGGGCGAGGGCGAGGTGTGTGTGAAAGGGCCAAATGTATTTCAAGGCTACTTGAA  
GGACCCAGCGAAAAACAGCAGAAGCTTTGGACAAGACGGCTGGTTACACACAGGGGACATTGGAAAATGGTTACC  
AAATGGCACCTTGAAAAATTATCGACCGGAAAAAGCACATATTTAAGCTGGCACAAGGAGAATACATAGCCCCCTGA  
AAAGATTGAAAAATATCTACATGCGAAGTGAGCCTGTTGCTCAGGTGTTTGTCCACGGAGAAAGCCTGCAGGCATT  
TCTCATTGCAATTTGTTGTTACCAGATGTTGAGACATTATGTTCTTGGGCCCCAAAAGAGAGGATTTGAAGGGTCTGTT  
TGAGGAAGTGTGCAGAAATAAGGATGTCAAAAAAGCTATCCTCGAAGATATGGTGAGACTTGGGAAGGATTCTGG  
TCTGAAACCATTTGAACAGGTCAAAGGCATCACATTGCACCCTGAATTATTTTCTATCGACAATGGCCTTCTGAC  
TCCAACAATGAAGGCGAAAAGGCCAGAGCTGCGGAACATTTTCAAGTTCGAGATAGATGACCTCTATTCCACTAT  
CAAGGTTTAGTGTGAAGAAGAAAGCTCAGAGGAAATGGCACAGTTCCACAATCTCTTCTCTGCTGATGGCCTTC  
ATGTTGTTAATTTTGAATACAGCAAGTGTAGGGAAGGAAGCGTTCTGTGTTTGAAGTGTCCATTCCGGGGTCTTCT  
CATAGGAATGCTAGAGGAAACAGAACCCGCTTACAGTCACCTCATGTTGCAGACCATGTTTATGGTAATACAC  
ACTTTCCAAAATGAGCCTTAAAAATTGTAAAGGGGATACTATAAATGTGCTAAGTTATTTGAGACTTCCTCAGTT  
TAAAAAGTGGGTTTTAAATCTTCTGTCTCCCTGCTTTTCTAATCAAGGGGTTAGGACTTTGCTATCTCTGAGATG  
TCTGCTACTTGTGCAATTCTGCAGCTGTCTGCTGCTCTAAAGAGTACAGTGCAGTACAGGGGAAGTGTTCCTT  
TAAAAATAAGAACAACCTGTCTGGCTGGAGAATCTCACAAGCGGACCAGAGATCTTTTTAAATCCCTGCTACTGT  
CCCTTCTCACAGGCATTACAGAACCCCTTCTGATTTCGTAAGGGTTACGAAACTCATGTTCTTCTCCAGTCCCCTG  
TGGTTTCTGTTGGAGCATAAGGTTTCCAGTAAGCGGGAGGGCAGATCCAACCTCAGAACCATGCAGATAAGGAGCC  
TCTGGCAAATGGGTGCTCATCAGAACGCGTGGATTCTCTTTCATGGCAGAATGCTCTTGGACTCGGTTCTCCAGG  
CCTGATTCCCCGACTCCATCCTTTTTTCAAGGGGTTATTTAAAAATCTGCCTTAGATTCTATAGTGAAGACAAGCAT  
TTCAAGAAAGAGTTACCTGGATCAGCCATGCTCAGCTGTGACGCTGAATAACTGTCTACTTTATCTTCACTGAA  
CCACTCACTCTGTGTAAAGGCCAACAGATTTTTAATGTGGTTTTTATATCAAAAGATCATGTTGGGATTAACCTG  
CCTTTTTCCCCAAAAAATAAACTCTCAGGCAAGCATTCTTTTAAAGCTATTAAGGGAGTATATACTTGAGTACTT  
ATTGAAATGGACAGTAATAAGCAAATGTTCTTATAATGCTACCTGATTTCTATGAAATGTGTTTGACAAGCCAAA  
ATTCTAGGATGTAGAAATCTGGAAAGTTCATTTTCTGGGATTCACTTCTCCAGGGATTTTTTAAAGTTAATTG  
GAAATTAACAGCAGTTCACITTTATTGTGAGTCTTTGCCACATTTGACTGAATTGAGCTGTCAATTTGTACATTTAA  
AGCAGCTGTTTTGGGGTCTGTGAGAGTACATGTAATTATATACAAGCACAACAGGGCTTGCACTAAAGAATTGTCA  
TTGTAATAACACTACTTGGTAGCCTAACTTCATATATGTAATCTTAATTGCACAAAAAGTCAATAATTTGTACC  
TTGGGGTTTTGAATGTTTGTCTTAAAGTGTGGCTATTTCTATGTTTTATAAACCAAAACAAATTTCCAAAAACA

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**FIGURE 195B**

ATGAAGGAAACCAAATAAATATTTCTGCATTTCG

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**FIGURE 196**

MQAHELFRYFRMPPELVDFRQYVRTLPNTILMGFGAFAALTTFWYATRPKPLKPPCDLSMQSVEVAGSGGARRSAL  
LDSDEPLVYFYDDVTTLYEGFQRGIQVSNNGPCLGSRKPDQPYEWLSYKQVAELSECIGSALIQKGFKTAPDQFI  
GIFAQNRPEWVIEQGCFAYSMVIVPLYDTLGNEAITYIVNKAELSLVFVDKPEKAKLLEGVENKLIPGLKIIIV  
VMDAYGSELVERGQRCGVEVTSMKAMEDLGRANRRKPKPPAPEDLAVICFTSGTTGNPKGAMVTHRNIVSDCSAF  
VKATENTVNPCPDDTLISFLPLAHMFERVVECVMLCHGAKIGFFQGDIRLLMDDLKVLQPTVFPVVPRLNRMFD  
RIFGQANTTLKRWLLDFASKRKEAELRSGIIRNNSLWDRLIFHKVQSSLGGRVRLMVTGAAPVSATVLTFLRAAL  
GCQFYEGYGQTECTAGCCLTMPGDWTAGHVGAPMPCNLIKLVDVEEMNYMAEAGEGEVCVKGPNVFQGYLKDPAK  
TAEALDKDGLHTGDIGKWLPNGLTKIIDRKKHIFKLAQGEYIAPEKIENTIYMRSEPVAQVFVHGESLQAFLIAI  
VVPDVETLCSWAQKRGFEFSFEELCRNKDVKKAILEDMVRLGKDSGLKPFQVKGITLHPELFSIDNGLLTPTMK  
AKRPELRNYFRSQIDDLYSTIKV

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**FIGURE 197**

CGGCCAGCACACCCCGGCACCTCCTCTGCGGCAGCTGCGCCTCGCAAGCGCAGTGCCGCAGCGCACGCCGGAGTG  
GCTGTAGCTGCCTCGGCGCGGCTGCCGCCCTGCGCGGGCTGTGGGCTGCGGGCTGCGCCCCGCTGCTGGCCAGC  
TCTGCACGGCTGCGGGCTCTGCGGCGCCCGGTGCTCTGCAACGCTGCGGCGGGCGGCATGGGATAACGCGGCCAT  
GGTGCGCCGAGATCGCCTCCGCAGGATGAGGGAGTGGTGGGTCCAGGTGGGGCTGCTGGCCGTGCCCTGCTTGC  
TGCGTACCTGCACATCCACCCCCCTCAGCTCTCCCTGCCCCTTCACTCATGGAAGTCTTCAGGCAAGTTTTTCAC  
TTACAAGGGACTGCGTATCTTCTACCAAGACTCTGTGGGTGTGGTTGGAAGTCCAGAGATAGTTGTGCTTTTACA  
CGGTTTTCCAACATCCAGCTACGACTGGTACAAGATTTGGAAGGGTCTGACCTTGAGGTTTCATCGGGTGATTGC  
CCTTGATTTCTTAGGCTTTGGCTTCAGTGACAAACCGAGACCACATCACTATTCCATATTTGAGCAGGCCAGCAT  
CGTGGAAGCGCTTTTGCGGCATCTGGGGCTCCAGAACCGCAGAATCAACCTTCTTTCTCATGACTATGGAGATAT  
TGTTGCTCAGGAGCTTCTCTACAGGTACAAGCAGAATCGATCTGGTCGGCATAACCATAAAGAGTCTCTGTCTGTC  
AAATGGAGGTATCTTTCTGAGACTCACCGTCCACTCCTTCTCCAAAGCTACTCAAAGATGGAGGTGTGCTGTC  
ACCCATCCTCACACGACTGATGAACCTCTTTGTATTCTCTCGAGGTCTCACCCAGTCTTTGGGCCGTATACTCG  
GCCCTCTGAGAGTGAGCTGTGGGACATGTGGGCAGGGATCCGCAACAATGACGGGAACCTAGTCATTGACAGTCT  
CTTACAGTACATCAATCAGAGGAAGAAGTTTCAAGGCGCTGGGTGGGAGCTCTTGCCCTGTAACTATCCCCAT  
TCATTTTATCTATGGGCCATTGGATCCTGTAAATCCCTATCCAGAGTTTTTGGAGCTGTACAGGAAAACGCTGCC  
GCGGTCCACAGTGTGATTCTGGATGACCACATTAGCCACTATCCACAGCTAGAGGATCCCATGGGCTTCTTGAA  
TGCATATATGGGCTTCATCAACTCCTTCTAGAGCTGGAAGAGTAGCTTCCCTGTATTACCTCCCCTACTCCCTTA  
TGTGTTGTGATTCCACTTAGGAAGAAATGCCCAAAGAGGTCTGGCCATCAAACATAATTCTCTCACAAAGTC  
CACTTTACTCAAATTGGTGAACAGTGTATAGGAAGAAGCCAGCAGGAGCTCTGACTAAGGTTGACATAATAGTCC  
ACCTCCCATTACTTTGATATCTGATCAAATGTATAGACTTGGCTTTGTTTTTGTGCTATTAGGAAATTCTGATG  
AGCATTACTATTCACTGATGCAGAAAGACGTTCTTTTGCATAAAAGACTTTTTTTTAACTTTGGACTTCTCTG  
AAATATTTAGAAGTGCTAATTTCTGGCCCACCCCCAACAGGAATTCTATAGTAAGGAGGAGGAGAAGGGGGGCTC  
CTTCCCTCTCCTCGAATGACGTTATGGGCACATGCCTTTTAAAGTTCTTTAAGCAACACAGAGCTGAGTCCCTCT  
TTGTCATACCTTTGGATTTAGTGTTCATCAGCTGTTTTTAGTTATAAACATTTTGTAAATAGATATTGGTTT  
AAATGATACAGTATTTTAGGTATGATTTAAGACTATGATTTACCTATACATTATATATATTTTATAAAGATACTA  
AACCAGCATACCTTACTCTGCCAGAGTAGTGAAGCTAATTAAACACGTTTGGTTTTCTGAATAAATTGAACTAAA  
TCCAAACTATTTCTAAATCACAGGACATTAAGGACCAATAGCATCTGTGCCAGAGATGTACTGTTATTAGCTG  
GGAAGACCAATTCTAACAGCAAATAACAGTCTGAGACTCCTCATACCTCAGTGGTTAGAAGCATGTCTCTCTTGA  
GCTACAGTAGAGGGGAAGGGATTGTTGTGTAGTCAAGTCACCATGCTGAATGTACACTGATTCCTTTATGATGAC  
TGCTTAACTCCCCACTGCCTGTCCCAGAGAGGCTTTCCAATGTAGCTCAGTAATTCCTGTTACTTTACAGACAGG  
AAAGTTCCAGAACTTTAAGAACAACTCTGAAAGACCTATGAGCAAATGGTGCTGAATACTTTTTTTTTTAAAGC  
CACATTTTATTGCTTTAGTCAAAGCAGGATTATTAAGTGATTATTTAAATTCGTTTTTTTTTAAATTAGCAACTTC  
AAGTATAACAACTTTGAACTGGAATAAGTGTTTATTTTCTATTAATAAAAATGAATTGTGACAAAAAAAACC  
G

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**FIGURE 198**

MVRRDRLRRMREWWVQVGLLAVPLLAAYLHIPPQQLSPALHSWKSSGKFFTYKGLRIFYQDSVGVVGSPEIVVLL  
HGFPTSSYDWYKIWKGLTLRFHRVIALDFLGFGFSDKPRPHYSIFEQASIVEALLRHLGLQNRRLNLLSHDYGD  
IVAQELLYRYKQNRSGRHTIKSLCLSNGGIFPETHRPLLLQKLLKDGGVLSPILTRLMNFFVFSRGLTPVFGPYT  
RPSESELWDMWAGIRNNDGNLVIDSLLQYINQRKKFRRRWVGALASVTIPIHFIYGPLDPVNPYPEFLELYRCTL  
PRSTVSILDDHISHYPQLEDPMGFLNAYMGFINF



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**FIGURE 199**

CTGACTTGGCAGGACTGTGCAATTGTCAGAAGGCCGTGGGGAGTGGGGGCCAGTGCCTGCAGCCTGCCCTGCCTC  
TCTCACAGGCCCTTAGAGCATCGCCAGGTGCAGAGCTCCACAGCTCTCTTTCCCAAGGAGTAATCAGAGGGTGAG  
AACGTGGAGCCTGGTGGACAGGTGAAAGCACTGGGATCTTTCTGCCCAGAAAGGGGAAAGTTGCACATTTATATC  
CTAGAGGGAAGCGACAGCAGTGCTTCTCCCTGTGCTGAGGTACAGGAGCCATGTGGCTAGAAATCCTCCTCACTT  
CAGTGCTGGGCTTTGCCATCTACTGGTTTCATCTCCCGGGACAAAGAGGAACTTTGCCACTTGAAGATGGGTGGT  
GGGGGCCAGGCACGAGGTCCGCAGCCAGGGAGGACGACAGCATCCGCCCTTTCAAGGTGGAAACGTCAGATGAGG  
AGATCCACGACTTACACCAGAGGATCGATAAGTTCCGTTTTACCCACCTTTGGAGGACAGCTGCTTCCACTATG  
GCTTCAACTCCAACCTGAAGAAAGTCATCTCCTACTGGCGGAATGAATTTGACTGGAAGAAGCAGGTGGAGA  
TTCTCAACAGATACCCTCACTTCAAGACTAAGATTGAAGGGCTGGACATCCACTTCATCCACGTGAAGCCCCCCC  
AGCTGCCCCGAGGCCATACCCCGAAGCCCTTGCTGATGGTGCACGGCTGGCCCGGCTCTTTCTACGAGTTTTATA  
AGATCATCCCACTCCTGACTGACCCCAAGAACCATGGCCTGAGCGATGAGCACGTTTTTGAAGTCATCTGCCCTT  
CCATCCCTGGCTATGGCTTCTCAGAGGCATCCTCCAAGAAGGGGTTCAACTCGGTGGCCACCGCCAGGATCTTTT  
ACAAGCTGATGCTGCGGCTGGGCTTCCAGGAATTCTACATTCAAGGAGGGGACTGGGGGTCCCTGATCTGACTA  
ATATGGCCCAGCTGGTGGCCAGCCACGTGAAAGGCCTGCACTTGAACATGGCTTTGGTTTTAAGCAACTTCTCTA  
CCCTGACCCTCCTCCTGGGACAGCGTTTCGGGAGGTTTCTTGGCCTCACTGAGAGGGATGTGGAGCTGCTGTACC  
CCGTCAAGGAGAAGGTATTCTACAGCCTGATGAGGGAGAGCGGTACATGCACATCCAGTGCACCAAGCCTGACA  
CCGTAGGCTCTGCTCTGAATGACTCTCCTGTGGGTCTGGCTGCCTATATTCTAGAGAAGTTTTCCACCTGGACCA  
ATACGGAATTCCGATACCTGGAGGATGGAGGCCTGGAAAGGAAGTTCTCCCTGGACGACCTGCTGACCAACGTCA  
TGCTCTACTGGACAACAGGCACCATCATCTCCTCCCAGCGCTTCTACAAGGAGAACCTGGGACAGGGCTGGATGA  
CCCAGAAGCATGAGCGGATGAAGGTCTATGTGCCCCTGGCTTCTCTGCCTTCCCTTTTGAGCTATTGCACACGC  
CTGAAAAGTGGGTGAGGTTCAAGTACCCAAAGCTCATCTCCTATTCTACATGGTTTCGTGGGGGCCACTTTGCGG  
CCTTTGAGGAGCCGGAGCTGCTCGCCCAGGACATCCGCAAGTTCTGTGCGGTGCTGGAGCGGCAATGAACCCACCC  
CTCTCCCCCGCCTGCCACCTCCCCCACAAGTGCCCTCCAGGCTTTTCTTGGGGAAGATACCCCTTTTCTGAGG  
AATGAGTTTGCCTCCGTCCCCTGCCCATGCTGGGAGCCCACGCTCACCCCTCACCCCTCCAAGCTCACTCCCCA  
ACCCCCAACTCCGTGTGGTAAGCAACATGGCTTTGATGATAAACGACTTTACTCTA

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**FIGURE 200**

MWLEILLTSVLGFAIYWFISRDKEETLPLEDGWWGPGTRSAAREDDSI RPFKVETSDEEIHDLHQRIDKFRFTPP  
LEDSCFHYGFNSNYLKKVISYWRNEFDWKKQVEILNRYPHFKTKIEGLDIHFIHV KPPQLPAGHTPKPLLMVHGW  
PGSFYEFYKIIPLLLTDPKNHGLSDEHVFEVICPSIPGYGFSEASSKKGFNSVATARIFYKLMLRLGFQEFYIQGG  
DWGSLICTNMAQLVP SHVKGLHLNMA LVLSNFSTLTLLLGQRFGRFLGLTERDV ELLYPVKEKVFYSLMRESGYM  
HIQCTKPDTVGSALNDSPVGLAAYILEKFSTWTNTEFRYLEDGGLERKFSLDDLLTNVMLYWTTGTIISSQRFYK  
ENLGQGWM TQKHERMKVYVPTGFSAPPFELLHTPEKWVRFKYPKLISYSYMVRGGHFAAFEEPELLAQDIRKFLS  
VLERQ

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**FIGURE 201A**

GAGGAAGCGATTCTGGGGTTTCTGTGTTGAACGGTTCCTGTCCGCGAAGATGCGCTTCGGCCTCTGTCAGGGGAC  
TTGAACGGGCTTAGTGGGCTTCAGCCAGCTTTTCTCCACCGGTTCCCCACGGGGACCCCCCCCCCGGCCGTTG  
CAATGCGGGCGTGGGGCCGGGGGCTACGCGCGGAGTTCTGTGCCACCGCCAGAGTGCCCCGTCTTTGAGCCGA  
GTTGGGAGGAGTTCACAGATCCGCTCAGCTTTATCGGCCGATCCGGCCTTTGGCGGAGAAAACCGGCATCTGCA  
AAATTCGGCCGCCCAAGGACTGGCAGCCTCCATTTGCCTGTGAAGTAAAAAGCTTTTCGTTTCACTCCAAGAGTCC  
AGCGCCTGAATGAACCTTGAGGCAATGACCAGAGTGAGATTGGATTTCTTGGATCAACTAGCAAAATTTTGGGAAC  
TTCAAGGATCTACTCTGAAGATCCCTGTGGTAGAGAGAAAAATCCTGGATCTGTATGCTTTGAGCAAGATTGTTG  
CCAGCAAAGGAGGTTTTGAAATGGTCACCAAAGAGAAATGGTCTAAAGTGGGTAGTCGCTTGGGATATCTGC  
CAGGAAAAGGAACTGGGTCTCTTTTGAAGTCACATTATGAAAGAATTCTCTACCCATATGAGCTTTTCCAGTCTG  
GTGTGAGCCTTATGGGTGTGCAGATGCCTAATTTAGATCTTAAAGAAAAAGTGGAGCCTGAGGTTCTCAGCACTG  
ATACCCAAACTTCCCCAGAGCCAGGCACAAGGATGAACATTCTGCCGAAGAGAACAAGACGTGTGAAGACTCAGT  
CAGAATCTGGAGATGTGAGTAGAAAACCGGAACCTGAAGAACTTCAGATTTTTGGGGCTGGGCCCCAAGGTTGTGG  
GCTTGGCAATGGGAACAAAAGATAAAGAAGATGAGGTCACCCGAAGACGAAAAGTTACCAACAGGTCAGACGCAT  
TTAATATGCAAATGAGACAACGGAAAGGCACTCTCTGTGTTAACTTTGTTGATCTCTATGTTTGTATGTTTGTG  
GTCGGGGAAACAATGAAGATAAAATTGCTTTTGTGTGATGGATGTGATGACAGCTATCATACTTTTGTCTAATTC  
CTCCACTACCTGATGTGCCCAAAGGAGACTGGAGGTGTCCTAAATGTGTGCGCGAGGAATGTAGCAAACTCGAG  
AAGCCTTTGGATTTGAACAAGCTGTACGAGAGTATACACTTCAGAGCTTTGGAGAGATGGCAGATAATTTTAAGT  
CTGATTATTTTAATATGCCAGTCCATATGGTTCCCACAGAACTAGTAGAAAAGGAATTTTGGCGGCTGGTAAGCA  
GCATTGAAGAAGATGTTATTGTGGAATATGGAGCAGATATCTCTCAAAGACTTTGGAAGTGGATTTCCGGTGA  
AGGATGGGCGGAGAAAGATTCTGCCAGAAGAAGAGGAATATGCACCTTTCTGGTTGGAATTTGAATAACATGCCTG  
TCCTGGAACAGTCTGTTCTTGCACATATTAATGTGGACATCTCTGGTATGAAAGTGCCGTGGCTCTATGTGGGAA  
TGTGCTTCTCTTCTTTTGTGCTGGCACATTGAGGATCACTGGAGTTATTCCATCAACTACTTGCAGTGGGGGGAGC  
CAAAGACATGGTATGGTGTGCCATCTCATGCTGCAGAGCAACTGGAGGAGGTGATGAGAGAGCTGGCCCCCGAGT  
TATTTGAATCCCAGCCTGATCTTCTGCATCAGTTAGTTACCATCATGAACCCCAACGTGCTAATGGAGCATGGTG  
TGCCTGTGTACAGGACCAATCAGTGTGCTGGCGAGTTTGTGTGACATTTCTCGTGCCTATCACTCTGGATTTA  
ACCAGGGCTACAACCTTGTGTAAGCTGTGAACCTTCTGTACTGCTGACTGGTTGCCATTGGACGTCAATGTGTAA  
ATCATTACCGACGCCTAAGGCGCCACTGTGTCTTTTACACGAGGAACTAATTTTCAAGATGGCAGCAGATCCAG  
AATGCTTAGATGTGGGGCTGGCTGCCATGGTCTGCAAAGAATTGACTCTCATGACTGAAGAAGAAACACGATTAA  
GAGAGTCTGTTGTACAGATGGGTGTCTGTATGTGAGAAGAAGTGTTTGAACCTGTTTCTGATGATGAGCGGC  
AGTGTTACAGCATGCAGAACCACATGTTTTCTCTCTGCTCTCACATGTTCTGTAAATCCTGAGCGGCTTGTATGTC  
TCTACCATCCAACCTGATCTGTGCCCTGCCCCATGCAGAAGAAATGTCTTAGATATCGCTACCCATTAGAAGACC  
TCCCTTCTCTGCTATATGGTGTAAGTCAAGGCACAGTCCATGACACTTGGGTGAGTCGTGTTACAGAAGCAT  
TGTCTGCTAACTTCAACCACAAAAAGATTTGATTGAATTGCGAGTAATGCTGGAAGATGCTGAGGATAGGAAAT  
ACCCAGAGAATGATCTCTTTCGAAAACCTCAGGGATGCTGTAAAAGAAGCTGAGACCTGTGCTTCTGTGGCTCAGC  
TGCTTCTGAGCAAAAAGCAGAAACACAGACAGAGCCCAGATAGTGGGAGGACTCGGACCAAACCTGACAGTGAAG  
AATTGAAGGCCTTTGTCCAACAACCTTTTAGTCTTCCGTGTGTCTATCAGCCAAGCTCGGCAAGTAAAGAATCTGC  
TAGATGATGTGGAAGAGTTTCATGAACGTGCTCAGGAGGCCATGATGGATGAAACCCAGATTCTTCCAAACTCC  
AGATGTTGATAGATATGGGCTCTAGTCTCTATGTGGAACCTCCCTGAATTACCACGACTGAAGCAAGAGCTACAAC  
AGGCTCGGTGGTTGGACGAAGTAAGACTGACCTTATCAGATCCGCAACAAGTCACTTTGGATGTCTGAAGAAGC  
TGATAGACTCTGGGGTAGGGTTGGCACCCACCATGCTGTGGAGAAAGCAATGGCTGAACCTACAGGAGCTCCTTA  
CAGTCTCTGAACGATGGGAAGAAAAGGCTAAGGTCTGCCTACAGGCAAGACCGAGGCACAGTGTGGCAAGTTTAG  
AAAGCATTGTGAATGAAGCCAAGAACATTCCAGCCTTTCTACCCAATGTGTTGTCCTTGAAAGAAGCCTTACAAA  
AGGCTCGAGAATGGACCGCTAAAGTGAAGCTATTACAGAGTGGCAGCAATTACGCTTATTTGGAGCAGCTTGAGA  
GCTTGTCTGCGAAAAGGACGCCCTATTCTGTGCTCTTGAAGCACTGCCGCAAGTGAATCACAGGTAGCAGCAG  
CACGGGCATGGAGAGAACCGACTGGGCGGACGTTTCTTAAGAAGAATTCTAGCCATACATTGTTACAGGTGCTGA  
GCCCCCGGACCGACATTGGTGTATATGGGAGTGGCAAAAATAGGAGGAAAAAGTAAAAAGAACTAATAGAAAAAG  
AAAAAGAAAAGGATCTGGACCTGGAGCCTCTGAGTGATCTGGAGGAAGGATTGGAGGAAACCAGAGATACAGCCA  
TGGTGGTGGCAGTTTTCAAAGAACGGGAGCAAAAAGAGATTGAAGCCATGCATTCTCTCAGAGCAGCCAACCTAG

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**FIGURE 201B**

CCAAGATGACAATGGTGGACCGCATAGAAGAAGTAAAATTTTGCATTTGCCGCAAGACAGCCAGTGGGTTTATGC  
TACAGTGTGAGCTCTGCAAAGACTGGTTCCATAACAGCTGTGTTCCCTCTTCTAAATCAAGTTCCCAAAAAAAG  
GATCCAGCTGGCAAGCTAAAGAAGTAAAATTCCTTTGCCCTCTTTGTATGCGGTCTCGAAGGCCAGGCTAGAGA  
CTATTCTGTCACTCCTGGTATCCCTTCAGAAGTTGCCCGTACGGTTGCCTGAAGGAGAGGCCCTGCAGTGTTTGA  
CAGAACGTGCTATGAGTTGGCAAGATAGAGCGCGGCAGGCTCTAGCCACAGATGAACTATCCTCTGCCCTGGCCA  
AACTATCTGTGTTGAGCCAGCGTATGGTGGAACAGGCGGCTCGAGAAAAAAGTGAAGAGATCATCAGTGCAGAAC  
TCCAAAAAGCAGCTGCCAATCCAGACTTACAGGGACACTTACCTAGTTTCCAGCAGTCTGCTTTTAACCGGGTGG  
TGAGCAGTGTGTATCTTCTCCTCGACAAACAAATGGACTATGATGATGAAGAAACAGACTCTGATGAAGACATTC  
GAGAGACATATGGCTACGACATGAAGGACACAGCCAGTGTGAAGTCCTCTAGTAGTCTTGAACCCAATCTTTTTT  
GTGATGAAGAGATTCCCATCAAATCCGAGGAGGTGGTGACCCACATGTGGACAGCACCTTCATTTTGTGCAGAGC  
ATGCTTATTCTTCTGCTTCTAAGAGTTGTTCTCAAGTATTTTTTGGGAAAGGTTCTAGCACCCCAAGGAAACAAC  
CTCGGAAGAGCCCTTTGGTGCCCCGAAGTTTGGAACTCCAGTGTGAGTTGTACCTGGAGCTAAGGCACAAC  
TGGAAGAACTTATGATGGTTGGAGATCTCCTGGAAGTATCTCTGGACGAGACTCAACACATATGGCGGATTTTGC  
AGGCCACACACCCACCTCTGAAGACAGATTCTTGCAATATCATGGAGGATGACAGCATGGAAGAGAAACCACTAA  
AAGTGAAGGAAAGGACTCTTCAGAGAAGAAACGGAACGGAAGCTAGAAAAGGTAGAGCAACTTTTTGGAGAAG  
GAAAACAGAAGTCCAAGGAGTTAAAGAAAATGGACAAACCTAGAAAGAAGAAATTTAAATTAGGTGCAGACAAAT  
CAAGAAGCTGAATAAACTGGCCAAGAACTAGCAAAAGAAGAGAGAGAAAGAAAAGAGGAGAAGGCTGCTG  
CAGCCAAAGTTGAACCTTGTGAAGAGAGCACTGAAAAGAAAAGAGAGAAAAGGTGCTGGACATCCCTCAAAGT  
ATGACTGGTCAGGAGCAGAGGAGTCTGATGATGAGAATGCTGTGTGCGCAGAACCAGACTGCCAAAGGCCCTGCA  
AGGACAAGGGAGTTGTATTTGTAACGAAGAAGAGAGAGATAAAAAATATTAGTTTTTAAAGTGTCTATGTGACT  
GCTTTTCTAAAAAGGTAGACTGGGTACAATGTGATGGTGGCTGTGATGAGTGGTTTCATCGGGTTTGTGTGGGTG  
TATCTCCAGAAATGGCTGAAAATGAAGATTACATCTGTATAAACTGTGCAAAGAAGCAGGGGCCAGTTAGCCAG  
GTCCAGCACCACTCCTTCTTCTAATGAGCTACAACTACCAATGGAGGATCTTAAAGAGACCAGTTAGCAGA  
TGCTTGGTTAGTTTGGGACATGGGGGACATGGACCACATTGAGACCTTAGTCATCAAGTAGAGTGGTTTTATATC  
ACTTGAATGTTGCTTCTAAAGATGAATGGCCTTCAGAGAAAGTCCCCTTAGTGCTGGCTTCCTCTTTCATGGA  
CTCTGTGGGTTACATTGCTCTATCAACATATCTATGCAGAGGGTGTCTTCTTGGTACAACAGCCAATATCTCAT  
GTCTCCTTTGAGTGTGGTTTACTGCATTAAGGCCAGATGCTTAATTGAGCTCTAGGGTGGCTGGTTAGTATTAAT  
ACATTGGTGTGCTAACAGGGCATATAGGATGTGGCTTTTGTCCAGCTGATAGTAGTTAGAGGCTTACAACCTTAGG  
AGCAGCACCAACTGAAGGTGCTAATTGCTTGGATCTCCTTCATTAGGATAGTTGGAGAGGGATTGGAGTACCACT  
TTCTTCCACTGTTACCAGGTACTTAATGCCCTAAAGATACAACCTAGGAGTAACAGGGCCAAAGTTATTTCTGTTA  
GACGTCAAGGAATGGTATCACAGTCTATTGACCTCAGCGATTTGTGCTTGTGTTGTGCTAGAAGAACATCCCAAT  
AGGAGAACCTCTCACAAGCTGGGGCAGGTCACCTTATCTTTGTAAGATGAGGATATCATCTAGATCAGAAATCTG  
ACTAGATTGGATTCTGAGGAGAAGAACCTACTACAAGGCAAGGAGCCGTTTTTGGCTTTGAAAAGTCTTGCTGT  
CTTGGGTCTACATTTTAGGGAAGAGCAGGTACATGGATCCAGGCTTCTGCCAAAAAAGAGAAGAAGATGA  
CGAGTATGACCAGTCGTACTATCTTACTGAGCCACAGTGATGCATGCTTTTCGGGGAAAACTTCATTACAAGTA  
TTCCAGACACCAGGCTTCAGGCATGGCCATGAGCAAGACCAGCAAATAACAGCTTTTTCCCTTGACGCCCTGACC  
CCAATGTCTGCTGTTTCCAACACTGGTGATTTCTAACTACGGCCACAGCAGATGCTGTTGAATAACACCATGGC  
TTCATCAGAGGATGTGGGGTTGTAGTACCTCTGGGTGATGAAGTTGTTTTAGCAAATCCATTTTAAAAA  
AAAAA

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**FIGURE 202**

MAGVGPGGYAAEFVPPPECPVFEPSSWEEFTDPLSFIGRIRPLAECTGICKIRPPKDWQPPFACEVKSFRFTPRVQ  
RLNELEAMTRVRDLDFLDQLAKFWELQGSTLKIPVVERKILDLYALSKIVASKGGFEMVTKKKWSKVGSRLGYLP  
GKGTGSLKSHYERILYPYELFQSGVSLMGVQMPNLDLKEKVEPEVLSTDQTSTPEPGTRMNILPKRTRRVKTQS  
ESGDVSRNTELKKLQIFGAGPKVVGLAMGTDKDEDEVTRRRKVTNRSDAFNMQMRQRKGTLSVNFVDLYVCMFCG  
RGNNEKLLCDGCDSDYHTFCLIPPLPDVPKGDWRCPKCAEECSKPREAFGEQAVREYTLQSFGEADNFKS  
DYFNMPVHMVPTLVEKEFWRLVSSIEEDVIVEYGADISSKDFGSGFPVKDGRRKILPEEEYALSGWNLNNMPV  
LEQSVLAHINVDISGMKVPWLYVGMCFSSFCWHIEDHWSYSINYLHWGEPKTYGVPSHAAEQLEEVRELAPEL  
FESQPDLLHQLVTIMNPNVMEHGVVYRTNQCAFVVTFRAYHSGFNQGYNFAEAVNFCTADWLP IGRQCVN  
HYRRLRRHCVFSHEELIFKMAADPECLDVGLAAMVCKELTLMTEETRLRESVVQMGVLMSEEEVFELVPDDERQ  
CSACRTTCFLSALTCSCNPERLVCLYHPTDLCPCPMQKKCLRYRYPLEDLPSLLYGVKVRAQS YDTWVSRVTEAL  
SANFNHKKDLIELRVMLEDAEDRKYPENDLFRKLRAVKEAETCASVAQLLLSKKQKHRQSPDSGRTRTKLTVEE  
LKAFVQQLFSLPCVISQARQVKNLDDVEEFHERAQEAMMDETPDSSKLQMLIDMGSSLYVELPELPRLKQELQQ  
ARWLDEVRLTSLDPQQVTLDMVKKLIDSGVGLAPHHAVEKAMAELOELLTVSERWEEKAKVCLQARPRHSVASLE  
SIVNEAKNIPAFLPNVLSLKEALQKAREWTAKVEAIQSGSNYAYLEQLESLSAKGRPIPVRLALPQVESQVAAA  
RAWRERTGRFTLKKNSSHTLLQVLSPRTDIGVYSGGNRRKKVKELIEKEKEKDLLEPLSDLEEGLEETRD TAM  
VVAVFKEREQKEIEAMHSLRAANLAKMTMVDRIEEVKFCICRKTASGFMLQCELCKDWFHNSCVPLPKSSSQKKG  
SSWQAKEVKFLCPLCMRSRRRPLETILSLVSLQKLPVRLPEGEALQCLTERAMSWQDRARQALATDELSSALAK  
LSVLSQRMVEQAAREKTEKII SAELQKAAANPDLOQHLP SFQQSAFN RVSSVSSSPRQTM DYDEETDSD EDIR  
ETYGYDMKDTASVKSSSSLEPNLFCDEEIP IKSEEVVTHMWTAPSFCAEHAYSSASKSCSQVFFGKGSSTPRKQP  
RKSPVLRSLPEPPVLELSPGAKAQLEELMMVGD LLEVSLDETQHIWRILQATHPPSEDRFLHIMEDDSMEEKPLK  
VKGKDSSEKKRKRKLEKVEQLFGEKQKSKELKKMDKPRKKKLKL GADKSKKLNKLAKKLAKKEEERKKKKEKAAA  
AKVELVKESTEKKREKKVLDIPSKYDWSGAEESDDENAVCAEPDCQRPCKDKGVVFTKKREIKNISFKSVLCDC  
FSKKVDWVQCDGGCDEWFHRVCVGVSPEMAENEDYICINCAKKQGPVSPGPAPPPSFIMSYKLPMEDLKETS

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**FIGURE 203A**

GAAGCGGCGGGCGGGGTGGAGCAGCCAGCTGGGTCCGGGGAGCGCCGCCCGCCTCGATGGGGTGTGAAAAGT  
CTCCTCTAGAGCTTTGGAAGGCTGAATGCACTAAACATGAAGAGCTTGAAAGCGAAGTTCAGGAAGAGTGACACC  
AATGAGTGGAACAAGAATGATGACCGGCTACTGCAGGCCGTGGAGAATGGAGATGCGGAGAAGGTGGCCTCACTG  
CTCGGCAAGAAGGGGGCCAGTGCCACCAAACACGACAGTGAGGGCAAGACCGCTTTCCATCTTGCTGCTGCAAAA  
GGACACGTGGAATGCCTCAGGGTCATGATTACACATGGTGTGGATGTGACAGCCCAAGATACTACCGGACACAGC  
GCCTTACATCTCGCAGCCAAGAACAGCCACCATGAATGCATCAGGAGGCTGCTTCAGTCTAAATGCCAGCCGAA  
AGTGTGACAGCTCTGGGAAAACAGCTTTACATTATGCAGCGGCTCAGGGCTGCCTTCAAGCTGTGACAGATTCTC  
TGCGAACACAAGAGCCCCATAAACCTCAAAGATTTGGATGGGAATATACCGCTGCTTCTTGCTGTACAAAATGGT  
CACAGTGAGATCTGTCACTTTCTCCTGGATCATGGAGCAGATGTCAATTCCAGGAACAAAAGTGGAAGAACTGCT  
CTCATGCTGGCCTGTGAGATTGGCAGCTCTAACGCTGTGGAAGCCTTAATTAAAAAGGGTGCAGACCTAAACCTT  
GTAGATTCTCTTGATACAATGCCTTACATTATTCCAACTCTCAGAAAATGCAGGAATTCAAAGCCTTCTATTA  
TCAAAAATCTCTCAGGATGCTGATTTAAAGACCCCAACAAAACCAAAGCAGCATGACCAAGTCTCTAAAATAAGC  
TCAGAAAGAAGTGGAATCCAAAAACACGCAAAGCTCCACCACCTCCTATCAGTCTACCCAGTTGAGTGATGTC  
TCTTCCCCAAGATCAATAACTTCGACTCCACTATCGGGAAAGGAATCGGTATTTTTTGCTGAACCACCCTTCAAG  
GCTGAGATCAGTTCTATACGAGAAAAACAAAGACAGACTAAGTGACAGTACTACAGGTGCTGATAGCTTATTGGAT  
ATAAGTTCTGAAGCTGACCAACAAGATCTTCTCTCTATTGCAAGCAAAGTTGCTTCCCTTACCTTACACAAT  
AAGGAGTTACAAGATAAATTACAGGCCAAATCACCCAAGGAGGCGGAAGCAGACCTAAGCTTTGACTCATACCAT  
TCCACCCAACTGACTTGGGCCCCATCCCTGGGAAAACCTGGTGAAACCTCTCCCCCAGACTCCAAATCATCTCCA  
TCTGTCTTAATACATTCTTTAGGTAAATCCACTACTGACAATGATGTGAGAATTCAGCAACTGCAAGAGATTTTG  
CAAGATCTACAGAAGAGATTAGAGAGCTCTGAAGCAGAGAGAAAACAGCTACAGGTGCAACTCCAATCCCCGAAGG  
GCAGAACTGGTATGCTTAAACAACACTGAGATTTTCAGAGAACAGCTCTGACCTCAGCCAGAACTTAAAGAACT  
CAGAGCAAATACGAGGAGGCTATGAAAGAAGTCCTTAGTGTGAGAAGCAGATGAAACTCGGTCTTGTCTCACCT  
GAAAGCATGGATAATTATTACATTTCCACGAGCTGAGGGTCACGGAAGAGGAAATAAATGTGCTAAAGCAGGAT  
CTGCAGAATGCATTAGAAGAAAGTGAAAGAAATAAAGAGAAAGTGAGAGAGTTAGAGGAAAACTGGTAGAGAGG  
GAGAAAGGTACAGTGATTAAGCCACCTGTGGAAGAGTACGAGGAAATGAAAAGTTCATATTGCTCTGTTATTGAG  
AATATGAATAAGGAGAAAGCATTTTTGTTTGAGAAATACCAAGAAGCCCAAGAAGAAATCATGAAATTAAGAGAC  
ACACTAAAAAGTCAGATGACACAGGAAGCCAGTGATGAAGCTGAGGACATGAAAGAAGCCATGAATAGGATGATA  
GATGAACTCAATAAACAGGTGAGCGAGCTGTACAGCTGTACAAAGAAGCCCAGGCTGAGCTGGAGGATTACAGG  
AAGAGGAAATCTCTAGAGGATGTACAGCTGAATATATCCATAAAGCAGAGCATGAGAACTGATGCAATTGACA  
AACGTGTCCAGGGCTAAAGCAGAAGATGCACTGTCTGAAATGAAGTCTCAGTATTCAAAGTGTTGAATGAGTTG  
ACCCAGCTCAAACAAGTGGTGGATGCACAAAAAGAGAACTCTGTCTCTATCACAGAACATTTGCAAGTGATAACC  
ACGCTGCGGACTGCAGCAAAAGAGATGGAAGAAAAATAAGCAATCTTAAGGAACACCTTGCAAGCAAGGAAGTG  
GAAGTAGCAAAGCTGGAGAAACAACCTCTTAGAAGAGAAAGCTGCTATGACTGATGCAATGGTACCTCGGTCTTCC  
TATGAAAACTCCAGTCATCCTTAGAGAGTGAAGTGAGTGTGTTGGCATCGAAATTAAAGGAATCTGTGAAAGAG  
AAAGAGAAGGTCCATTACAGAGTTGTCCAGATTAGAAGTGAGGTCTCACAGGTGAAAAGAGAAAAGGAAAATATT  
CAGACTCTCTTGAAATCCAAAGAGCAAGAAGTAAATGAACTTCTGCAAAAATTCAGCAAGCTCAGGAAGAACTT  
GCAGAAATGAAAAGATACGCTGAGAGCTCTTCAAACTGGAGGAAGATAAAGATAAAAAGATAAATGAGATGTGCG  
AAGGAAGTCACCAAATTGAAGGAGGCCTTGAACAGCCTCTCCCAGCTCTCCTACTCAACAAGCTCATCCAAAAGG  
CAGAGTCAGCAGCTGGAGGCGCTGCAGCAGCAAGTCAAACAGCTCCAGAACAGCTGGCGGAATGCAAGAAACAA  
CACCAGGAGGTATATCAGTTTACAGAATGCATCTTCTGTATGCTGTGACAGGGCCAGATGGATGAAGATGTCCAG  
AAAGTACTGAAGCAAATCCTTACCATGTGTAAAAACCAGTCTCAAAGAAGTAAAGTGGATTCCCTTGGCAGGACA  
CTGCCCCCTGTCTCTGTTGTTAGATCCAGAGTTGTGCGCAGCCGCTGCCATTGTTCTCATTCTGTTGGTAT  
GCACTGTGGCCTAGCGTAGCTTCTTCCCTTTCCAAAGGTTTCTGAGGACTTCTCCCAGGAGAAGACTGCCCGCCT  
CAGAACTGCTTAGAGACTTCAAACCAGCAGAGGTGAAAGTCCCTGTATCCCTTCAGATTCCAGAGCTGGGATCA  
GCCATGCCAGAGGTCTGGTCCCTGATGCTGGCAGGGGGGGCCCCCTCCTCCATCCCTGACTGGCTGAGTGGCTTTA  
TCACCACCGAGTGATGTGCTGAGGCCCTCCTGCAGTGAATGCTCCTTCCATTCTGTACTCGGGCAGTGCCATTCA  
GCACAGGAGAGCTCTTTTTGCTTTTCAATTCCAAAACATGATTTAATTTCTAACTAAATTAGTATGGCA  
CTAGTTATGAAGTATCTGCTTAAACCTTCATCATGATATCTGTGGATTTAAAACTCTAATTCCATGTTTTT

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**FIGURE 203B**

TTCCCATCTGCCTTATATATCTCATCACCCCTGCTTATCAATATTCAGTTTGATGAGCACTATTAACATAAAATATG  
AAACTTAAAAACAAAAGCAAGTTGTCCTTAAAAGTTCTTTTTTTAAGTAAATTGTTGACATACTGCAAATTTTCT  
ATGCAAACCTTGCCCTCCTGCTGTTATCTGTGAAGCTCAGGAAATCCAAACATTTGTGTTTCAACAAGGGACAGTAA  
ACTGTGTGTTTACAGCCAAAAGAAATGCCTCATAGTTCTTAACCTCAACTTTTGTAGAAGTATTTTTTCTCTGT  
AATATTTTTTATTGGCTCATAAAGATGTTTTCATATCTGAACTCCTAAATAAGTGAAATTACAGTAGATTATATTA  
ACAAAATACTTTTTAGGTAGCCATGCTTGAGACTTTTTAAAAATATAACTTTTTCTTAAAGTTTTTCAGCTATAG  
CAAAAGGTAGTTATGTATGCCAGACCTAATATGAGCTGCCACCAACACCCCTAGAACTTTTCAGCCATGGTGTCTT  
CAGAATTGTAGCGCATTTCTGAATCTAGCAAATCCTCCTTTTACCCGTTGAATGTTTTGAATGCCCTGACTCTAC  
CAGCGCCCATAAATGATCTCTAGAAGGACTGTTAGTACCAATCTGTTTTTCAACTTTGAAGCTAAAAACCCTGAT  
ATGGTAATATTATGGTGCATAGCAGAGGTCTCGGAAAAAAATATTTCTGTTCACCTTTACTTTTCAGGTTAAAAAT  
GTTTCTAACACGCTTGCAACTTCCCTTATGGCATTAACTCTGTTGAGGGAGAGAGACAGAATCCTGGACTCTCCA  
AAGTATTTAACTGAAAGTAGGGCCTGCTCTGACAGGGCCCATGTCCACAAAGGCTGCTTGGCCTCAGTGGGTGCT  
TGGCTGTGCTGGATGATATGTTGATCTGTATTGGATAAGGACCAATGACAGCAAAGCAAAAATGGCTTTAAAGCT  
TGGTGTACTTTTCTTAAGTTGTTTAATTATAGTTAAGCAATTTCAAAAATGCTCCAAAGAAATGTGAAAGGACC  
TTTTGTCACAGCACTTCAGAAAATACACAACAGCCCCCTTCTGCCCCCGCACAGAAATGCTGCAGAGTATATAAAA  
CTTGAGACATTTTTGTAGGATGCCTGACGAGGTGTAGCCTTTTATCTTGTTTCCGGATGCATATTTATTACGAGT  
ACTCTGGTTAAATATTGAAAAGTTATATGCTGTAGTTTTTAGTATTTTGTCTTTGTAATTTACAGAAGTTATTGG  
AGAAAATAAACTTGTTTCATTTTGCAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 204**

MKSLKAKFRKSDTNEWKNDDRLLQAVENGDAEKVASLLGKKGASATKHDSEGKTAFHLAAAKGHVECLRMITH  
GVDVTAQD TTGHSALHLAAKNSHHECIRRLQSKCPAESVDSSGKTALHYAAAQGCLQAVQILCEHKSPINLKDL  
DGNIP LLLAVQNGHSEICHFLLDHGADVNSRNKSGRTALMLACEIGSSNAVEALIKKGADLNLVDSLGYNALHYS  
KLSENAGIQS LLLSKISQDADLKTPTKPKQHDQVSKISSERSGTPKTRKAPPPPISPTQLSDVSSPRSITSTPLS  
GKESVFFAEPPFKAEISSIRENKDRLSDSTTGADSLDISSEADQD LLSLLQAKVASLTLHNKELQDKLQAKSP  
KEAEADLSFDSYHSTQTDLGPSLGKPGETSP PDSKSSPSVLIHSLGKSTTDNDVRIQQQLQEILQDLQKRLESSEA  
ERKQLQVELQSRRAELVCLNNT EISENSSDLSQKLKETQSKYEEAMKEVLSVQKQMKLGLVSPESMDNYSHFHEL  
RVTEEEINVLKQDLQNALEESERNKEKVRELEEKLVEREKGTVIKPPVEEYEEMKSSYCSVIENMNKEKAFLEK  
YQEAQEEIMKLKDTLKSQMTQEASDEAEDMKEAMNRMIDELNKQVSELSQLYKEAQAELEDYRKRKSLEDVTA EY  
IHKAHEKLMQLTNVSRKAEDALSEMKSQYSKVLNELTQLKQLVDAQKENSVSITEHLQVITTLRTAAKEME EK  
ISNLKEHLASKEVEVAKLEKQLLEEKAAMTDAMVPRSSYEKLQSSLESEVSVLASKLKESVKEKEKVHSEVVQIR  
SEVSQVKREKENIQTL LKSKEQEVNELLQKFQQAQEELAEMKRYAESSKLEEDKDKKINEMSKEVTKLKEALNS  
LSQLSYSTSSSKRQSQQLEALQQQVKQLQNQLAECKQHQEVI SVYRMHLLYAVQGQMD EDVQKVLKQILTMCKN  
QSQKK



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**FIGURE 205A**

AGTGGGACTCAGCGGGCGTGGAGGTCGCGGCGGACGGAGCGAGCCCTGGGCGAGTGAATTGTGGCTGTGGGTTGA  
CGGTGGAGACACCCCCGGAGAGGCGGAGGGAAGGGAGGCGAGGCTGCACCTGCATGCTTCCCGCCTCCCACTCC  
CCAGCGCCCCCGGACCGTGCAGTTCTCTGCAGGACCAGGCCATGGAGCTCGAAGTCCGGCGGGTCCGACAGGCGT  
TCCTGTCCGGCCGGTCGCGACCTCTGCGGTTTCGGCTGCAGCAGCTGGAGGCCCTGCGGAGGATGGTGCAGGAGC  
GCGAGAAGGATATCCTGACGGCCATCGCCGCCGACCTGTGCAAGAGTGAATTCAATGTGTACAGTCAGGAAGTCA  
TTACTGTCTTGGGGAAATTGATTTTATGCTTGAGAATCTTCTGAATGGGTTACTGCTAAACCAGTTAAGAAGA  
ACGTGCTCACCATGCTGGATGAGGCCTATATTAGCCACAGCCTCTGGGAGTGGTGTGATAATCGGAGCTTGGGA  
ATTACCCCTTCGTTCTCACCATTAGCCACTGATAGGAGCCATCGCTGCAGGAAATGCTGTGATTATAAAGCCTT  
CTGAAGTGAAGTGAATAACAGCCAAGATCTTGGAAGCTTCTCCCTCAGTATTTAGACCAGGATCTCTATATTG  
TTATTAATGGTGGTGTGGAGGAAACCACGGAGCTCCTGAAGCAGCGATTTGACCACATTTTCTATACGGGAAACA  
CTGCGGTTGGCAAAATTGTGATGGAAGCTGTGCAAGCATCTGACCCCTGTGACTCTTGAAGTGGGAGGAAAA  
GTCCATGTTATATTGATAAAGATTGTGACCTGGACATTGTTTGCAGACGCATAACCTGGGGAAAAATACATGAATT  
GTGGCCAAACCTGCATTGCACCCGACTATATTCTGTGAAGCATCCCTCCAAAATCAAATTGTATGGAAGATTA  
AGGAAACAGTGAAGGAATTTTATGGAGAAAAATATAAAGAGTCTCCTGATTATGAAAGGATCATCAATCTTCGTC  
ATTTTAAGAGGATACTAAGTTTGCTTGAAGGACAAAAGATAGCTTTTGGTGGGAGACTGATGAGGCCACACGCT  
ACATAGCCCCAACAGTACTTACCGATGTTGATCCTAAAACCAAGGTGATGCAAGAAGAAATTTTGGACCAATTC  
TTCCAATAGTGCCTGTGAAAAATGTAGATGAGGCCATAAATTTTATAAATGAACGTGAAAAGCCTCTGGCTCTTT  
ATGTATTTTCGCATAACCATAAGCTCATCAAACGGATGATTGATGAGACATCCAGTGGAGGTGTCACAGGCAATG  
ACGTCAATTATGCATTTCAGCTCAACTCTTTCCATTTGGAGGAGTGGGTTCCAGTGGGATGGGAGCTTATCACG  
GAAAACATAGTTTTGATACTTTTTCTCATCAGCGTCCCTGTTTATTAATAAGTTTAAAGAGAGAAGGTGCTAACA  
AACTCAGATATCCTCCCAACAGCCAGTCAAAGGTGGATTGGGGGAAATTTTTCTCTTGAACGGTTCAACAAAG  
AAAACTCGGTCTCCTGTTGCTCACTTTCTGGGTATTGTAGCCGCTGTGCTTGTCAAGGCAGAATATTACTGAA  
GAATGATCCTGTTCAACCTCCTAGTGCCTCTACTGAATTATTCCTCTTTTAAATGGTTAATGAACCAATAATTTT  
TAAATCATACCAAAAATAGTAAGAAAATATGAAACACTCTGTGATCAAACCTTAAAGTCAATTGCCATTATCAT  
TAATAAAGTTGCCATTTCAACTACGTCCCAACATTCCCTAATAGGGTATTAGGGAACCTGTCTTAAATTGTGC  
TTATCTAAATCTTGGAACCTTTAGCTAGGGGAGGAGAATGTATTAGACTAAATACAACTGCGGGGTTGTAAGGG  
AGTCTCAGAACCTCACTGAATCCTTCACTCCAGTTAATGGCACTGCTCACTTCTGCTGCCACCATCAC  
TGTGTGAAGCTTTCAAGAGCTTGGTACTTCCAGGGCTACCGGCAGTCCCTCTGTAGTCCAGAGAGGTGAGATTAG  
ATCTTCTTGGTTCCCTGTGAGGTTTCAGGCACTAAACTCTATGTGGGAAGGGAGGGGTTACTCTCTCTCAAT  
GGGACTCAAGGACTTGACCTCCAGGAGTAGGCCCCCTGGTCAGAAGTGCCATCTCACCAGTGGTCTTCATTCTTCC  
TCATTCAATTCTTTATCATCCTGTGTTCTGTTTAGTTGCAACAATCTCTGTGACTAATGTCACTCAAAGCATCTT  
GTAACCTAGGGCTTCTTGGAAGTTAGTTGCCAAAGTCATGCAAGCATCACCTGTCATTCTTGTGTTGGAGTTATA  
GAATTCTACATCTTATAAAACCTAACTGGCATTAAAAAATACTGTGGCCGGGCGTGGTGGCTCATGCCTGTAAT  
CCCAGCACTTTGGGAGGCCGAGGTGGGAGGATTGCTTGAGTCCAGGAATTTGAGACCAGCCTGGACAACACAGTG  
AGACCTCATCTCTATCAAAAAATAAAAAATTAGCTAGATGTGGTGGCATGAGCCTGTGTTCCAGCTGCTTAGGAG  
GCTGAAGCAGGAGGATTGATTGAGCCTGCGAGGCCAAGGCTGCAGCAGGCTGTGATTGCACCACTGCACCTCAGC  
TTGGGCAACAGAGCAAGACCCTGTCTCCGAAACAAATAAAAAATACTGTAATAAAAGTACTTATAAACATACTAA  
TCCTCTTTAGGACCCTAAAAGTTGCAGGTTAGTAGGTCTTCAAGGACAAATCTGTAAGTTTCTTTCTGTAGTGC  
AAGTAAATTTCACTTTTTGAAACTATAGAGAGATCCCTTTCTGATTAGCCTACAGAACTTAAAGTGAGGGAACC  
ATTTCTCTCACAGACAAAGAGGCCTGGGATATTAGGACTTTGGGGTTTGGAGCATCATGGGGCAGACAGATGG  
TGGATGGTCTGGACAAGAAGCGAGTAAGCCACTGCGGTTGGTCATACTGAAGGGAATTGATGGCAAGAGGATCCC  
CTGAGCAAGTCAGAAGTTACTCTCATCAGTCGTTTCATGGTCACAACCTGAGGTACTCTGCTGAGTGGGCAAGGCT  
GAAGTAAGAGGCCTGTGGAATGCAGCATTACCTGCTGGACAGAGCAGGGCAGGCTCTATGCCTTGGAGCTCC  
TGACTGCAGGGACTCTGTCCCCACACTCAGAAAGACTCAGCTCACTCAATGAGAGAATGTGATTTACTTTATAGA  
ACGTATAATCACTTTGTTGAATAATTTGTTCTATTAAGGCTGTCTAAAATGTGATGTCTTCATCATAGTATGAA  
GTGTTGAAAATTAATAACGAGCCTAGTTTAGGAAAAAGCTGCTTAAACTGTGGCTCTAAGAGAGTAATCATAAA  
ATACCTTAGATAAAATTGCACTATGGAATTTTCATTGAGTATGTTTAAATTATTGGCTGTCTACTAATACATCT  
GCTTCAAAATGAACATATTTTATAAAATTGGCATCAATTTTAAATGACGCTCCTGGTATGGAACCTCAGATATACC

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**FIGURE 205B**

CTATTGGAGACAATCCTTTGATCATAAATTCTCCCCAACTATAAATCATTTTATGTCTTTAAAAAAAAAAAAA

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**FIGURE 206**

MELEVRRVRQAFLSGRSRPLRFRLQQLEALRRMVQEREKDILTAIAADLCKSEFNVYSQEVITVLGEIDFMLENL  
PEWVTAKPVKKNVLTMLDEAYIQPQPLGVVLIIGAWNYPFVLTIQPLIGAIAAGNAVI IKPSELSENTAKILAKL  
LPQYLDQDLYIVINGGVEETTELLKQRFDHIFYTGNTAVGKIVMEAAAKHLTPVTLELGKSPCYIDKDCDLDIV  
CRRITWGYMNCGQTCIAPDYILCEASLQNQIVWKIKETVKEFYGENIKESPDYERIINLRHFKRILSLEGGQKI  
AFGGETDEATRYIAPTIVLTDVDPKTKVMQEEIFGPILPIVPVKNVDEAINFINEREKPLALYVFSHNHKLKRM  
DETSSGGVTGNDVIMHFTLNSFPFGGVGSSGMGAYHGKHSFDTFSHQRPCLLKSLKREGANKLRYPPNSQSKVDW  
GKFFLLKRFNKEKLGLLLLTFLGIVA AVL VKAEYY

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**FIGURE 207A**

GCCCCGAGTGCAATCGCGGGAAGCCAGGGTTTCCAGCTAGGACACAGCAGGTCGTGATCCGGGTCGGGACACTGC  
CTGGCAGAGGCTGCGAGCATGGGGCCCTGGGGCTGGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCG  
GGGACTGCAGTGGGCGACAGATGTGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGG  
GTCTGCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTACCTGCAAA  
TCCGGGGACTTCAGCTGTGGGGGCCGTGTCAACCGCTGCATTCTCAGTTCTGGAGGTGCGATGGCCAAGTGGAC  
TGCGACAACGGCTCAGACGAGCAAGGCTGTCCCCCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACGATGGG  
AAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCTTGGACGGCTCAGACGAGGCCTCCTGCCCCG  
GTGCTCACCTGTGGTCCCGCCAGCTTCAGTGCAACAGCTCCACCTGCATCCCCAGCTGTGGGCCTGCGACAAC  
GACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCGAGCGCTGTAGGGGTCTTTACGTGTTCCAAGGGGACAGT  
AGCCCCCTGCTCGGCCTTCGAGTTCCACTGCCTAAGTGGCGAGTGCATCCACTCCAGCTGGCGCTGTGATGGTGGC  
CCGACTGCAAGGACAAATCTGACGAGGAAAACCTGCGCTGTGGCCACCTGTGCCCCGACGAATTCAGTGCTCT  
GATGGAAACTGCATCCATGGCAGCCGGCAGTGTGACCGGGAATATGACTGCAAGGACATGAGCGATGAAGTTGGC  
TGCCTTAATGTGACACTCTGCGAGGGGACCCAACAAGTTCAAGTGTACAGCGGCGAATGCATCACCTGGACAAA  
GTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGGGGACCAACGAATGCTTG  
GACAACAACGGCGGCTGTTCCACGCTGCAATGACCTTAAGATCGGCTACGAGTGCCTGTGCCCCGACGGCTTC  
CAGCTGGTGGCCAGCGAAGATGCGAAGATATCGATGAGTGTGAGGATCCCGACACCTGCAGCCAGCTCTGCGTG  
AACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCAGCTGGACCCCCACACGAAGGCCTGCAAGGCT  
GTGGGCTCCATCGCCTACCTCTTCTTACCAACCGGCACGAGGTGAGGAAGATGACGCTGGACCGGAGCGAGTAC  
ACCAGCCTCATCCCCAACCTGAGGAACGTGGTCTGCTCTGGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCT  
GACCTGTCCCAGAGAATGATCTGCAGCACCCAGCTTGACAGAGCCCACGGCGTCTCTTCTATGACACCGTCATC  
AGCAGGGACATCCAGGCCCCCGACGGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTC  
CTGGGCACGTCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTAGGGAGAACGGCTCCAAGCCA  
AGGGCCATCGTGGTGGATCCTGTTTATGGCTTCATGTACTGGACTGACTGGGGAACCTCCCGCCAAGATCAAGAAA  
GGGGGCTGAATGGTGTGGACATCTACTCGCTGGTGAAGAAACATTGAGTGGCCCAATGGCATCACCTAGAT  
CTCCTCAGTGGCCGCCTCTACTGGGTTGACTCCAACTTCACTCCATCTCAAGCATCGATGTCAATGGGGGCAAC  
CGGAAGACCATCTTGAGGATGAAAAGAGGCTGGCCCCACCCCTTCTCCTTGGCCGCTTTTGAGGACAAAGTATT  
TGGACAGATATCATCAACGAAGCCATTTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACTTGTGGCTGAA  
AACCTACTGTCCCCAGAGGATATGGTCTCTTCCACAACCTCACCCAGCCAAGAGGAGTGAAGTGTGAGAGG  
ACCACCTGAGCAATGGCGGCTGCCAGTATCTGTGCTCCCTGCCCCGAGATCAACCCCCACTCGCCCAAGTTT  
ACCTGCGCCTGCCCCGACGGCATGCTGTGCGCCAGGGACATGAGGAGCTGCCTCACAGAGGCTGAGGCTGCAGTG  
GCCACCCAGGAGACATCCACCGTCAGGCTAAAGGTGAGTCCACAGCCGTAAGGACACAGCACACAACACCCGG  
CCTGTTCCCGACACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACCACGGTGGAGATAGTGACAATGTCTCAC  
CAAGCTCTGGGCGACGTTGTGCGCAGAGGAAATGAGAAGAAGCCAGTAGCGTGAGGGCTCTGTCCATTGTCTC  
CCCATCGTCTCCTCGTCTTCTTTGCTGGGGTCTTCTTCTATGGAAGAACTGGCGGCTTAAGAACATCAAC  
AGCATCAACTTTGACAACCCCGTCTATCAGAAGACCACAGAGGATGAGGTCCACATTTGCCACAACCAGGACGGC  
TACAGCTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGACGTGGCGTGAACATCTGCCTGGAGTCCCGCCCT  
GCCCAGAACCCTTCTGAGACCTCGCCGGCCTTGTTTTATTCAAAGACAGAGAAGACCAGCAAGCATTGCCTGCCAG  
AGCTTTGTTTTATATATTTATTCTCTGGGAGGCAGAACAGGCTTCGGACAGTGCCCATGCAATGGCTTGGGTTG  
GGATTTTGGTTTCTTCTTCTTCTGTGAAGGATAAGAGAAACAGGCCCGGGGGGACCAGGATGACACCTCCATTT  
TCTCCAGGAAGTTTTGAGTTTCTCTCCACCGTGACACAATCTCAAACATGGAAGATGAAAGGGCAGGGGATGTC  
AGGCCCAGAGAAGCAAGTGGCTTTCAACACACAACAGCAGATGGCACCAACGGGACCCCTGGCCCTGCCTCATC  
CACCAATCTCTAAGCCAAACCCCTAAACTCAGGAGTCAACGTGTTTACCTCTTCTATGCAAGCCTTGCTAGACAG  
CCAGGTTAGCCTTTGCCCTGTACCCCCGAATCATGACCCACCCAGTGTCTTTCGAGGTGGGTTGTACCTTCTT  
TAAGCCAGGAAAGGGATTCTATGGCGTCGGAAATGATCTGGCTGAATCCGTGGTGGCACCGAGACCAAACTCATTC  
ACCAAATGATGCCACTTCCCAGAGGCAGAGCCTGAGTCACCGGTACCCCTTAATATTTATTAAGTGCCTGAGACA  
CCCGGTTACCTTGGCCGTGAGGACAGTGGCTGCACCCAGGTGTGGCTGTGAGGACACCAGCCTGGTGGCCATC  
CTCCCGACCCCTACCCACTTCCATTCCCGTGGTCTCCTTGCACTTTCTCAGTTTCAAGTTGTACACTGTGTACAT  
TTGGCATTGTGTTATTATTTTGCAGTGTCTTCTGTGCTGTGTGGGATGGGATCCCAGGCCAGGAAAGCCC

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**FIGURE 207B**

GTGTCAATGAATGCCGGGGACAGAGAGGGGCAGGTTGACCGGGACTTCAAAGCCGTGATCGTGAATATCGAGAAC  
TGCCATTGTCGTCTTTATGTCCGCCACCTAGTGCTTCCACTTCTATGCAAATGCCTCCAAGCCATTCACTTCCC  
CAATCTTGTCGTTGATGGGTATGTGTTTAAAAACATGCACGGTGAGGCCGGGCGCAGTGGCCTCACGCCTGTAATC  
CCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTGAGGAGATCGAGACCATCCTGGCTAACAAGGTGAAA  
CCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGCGGTGGTGGGCACCTGTAGTCCCAGCTACTCGGGAGG  
CTGAGGCAGGAGAATGGTGTGAACCCGGGAAGCGGAGCTTGACGTGAGCCGAGATTGCGCCACTGCAGTCCGCAG  
TCTGGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAACAACAAAAAACCATGCATGGTGCATCAGC  
AGCCCATGGCCTCTGGCCAGGCATGGCGAGGCTGAGGTGGGAGGATGGTTTGAGCTCAGGCATTTGAGGCTGTCTG  
TGAGCTATGATTATGCCACTGCTTTCCAGCCTGGGCAACATAGTAAGACCCCATCTCTTAAAAAATGAATTTGGC  
CAGACACAGGTGCCTCACGCCTGTAATCCAGCACTTTGGGAGGCTGAGCTGGATCACTTGAGTTTCAAGGAGTTGG  
AGACCAGGCCTGAGCAACAAAGCGAGATCCCATCTCTACAAAAACCAAAAAGTTAAAAATCAGCTGGGTATGGTG  
GCACGTGCCTGTGATCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCGCCTGAGCCCAGGAGGTGGAGGTTGCA  
GTGAGCCATGATCGAGCCACTGCACTCCAGCCTGGGCAACAGATGAAGACCCTATTTTCAAGAAATACAACTATAAA  
AAAAATAAATAAATCCTCCAGTCTGGATCGTTTGACGGGACTTCAGGTTCTTTCTGAAATCGCCGTGTTACTGTT  
GCACTGATGTCCGGAGAGACAGTGACAGCCTCCGTCAGACTCCCGCGTGAAGATGTCACAAGGGATTGGCAATTG  
TCCCAGGGACAAAACACTGTGTCCCCCCCAGTGCAGGGAACCGTGATAAGCCTTTCTGGTTTTCGGAGCACGTAA  
ATGCGTCCCTGTACAGATAGTGGGGATTTTTTGTATGTTTGCACCTTGTATATTGGTTGAACTGTTATCACTT  
ATATATATATATACACACATATATATAAAATCTATTTATTTTTGCAAACCCTGGTTGCTGTATTTGTTCACTGAC  
TATTCTCGGGGCCCTGTGTAGGGGGTTATTGCCTCTGAAATGCCTCTTCTTTATGTACAAAGATTATTTGCACGA  
ACTGGACTGTGTGCAACGCTTTTTGGGAGAATGATGTCCCGTTGTATGTATGAGTGGCTTCTGGGAGATGGGTG  
TCACTTTTTAAACCACTGTATAGAAGGTTTTTGTAGCCTGAATGTCTTACTGTGATCAATTAAATTTCTTAAATG

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**FIGURE 208**

MGPWGWKLRWTVALLLAAAGTAVGDR CERNEFQCQDGKCI SYKWVCDGSAECQDGSDESQETCLSVTCKSGDFSC  
GGRVNR CIPQFWRC DGQVDCDNGSDEQGCPPKTC SQDEF RCHDGKCI SRQFVCDSDRDCLDGSDEASCPVLT CGP  
ASFQCNSSTCIPQLWACDNDPDCEDGSDEWPQRCRGLYVFQGDSSPCSAFEFHCLSGECIHSSWRCDGGPDCKDK  
SDEENCAVATCRPDEFQCSDGN CIHGSRQCDREYDCKDMSDEVGCVNVTLC EGP NKF KCHSGECITLDKVCNMAR  
DCRDWSDEPIKECGTNECLDNNGGCSHVCNDLKIGYECLCPDGFQLVAQRRCEDIDECQDPDTC SQLCVNLEGGY  
KCQCEEGFQLDPHTKACKAVGSIAYLFFTNRHEVRKMTLDRSEYTS LIPNLRNVVALDTEVASNRIYWSDLSQRM  
ICSTQLDRAHGVSSYDTVISRDIQAPDGLAVDWIHSNIYWTDSVLGTVSVADTKGVKRKTLFRENGSKPRAIVVD  
PVHGFMYWTDWGTPAKIKKGGLNGVDIYSLVTENIQWPNGITLDLLSGRLYWVDSKLHSISSIDVNGGNRKTILE  
DEKRLAHPFSLAVFEDKVFWTDIINEAIFSANRLTGSDVNLLAENLLSPEDMVL FHNLTQPRGVNWCERTTLSNG  
GCQYLCLPAPQINPHSPKFTCACPDGMLLARDMRSLTEAEAAVATQETSTVRLKVSSTAVRTQHTTTTRVPDTS  
RLPGATPGLTTVEIVTMSHQALGDVAGRGNEKKPSSVRALSIVLP I VLLVFLCLGVFLLWKNWRLKNINSINF DN  
PVYQKTTEDEVHICHNQDGYSYPSRQMVSL EDDVA

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**FIGURE 209**

AAGCGATGGCTGGGCCCCGCGTGGATCTCCAAGGTCTCTCGGCTGCTGGGGGCATTCCACAACCCAAAACAGGTGA  
CCAGAGGTTTTACTGGTGGTGTTCAGACAGTAACTTTAATTCCAGGAGATGGTATTGGCCCAGAAATTTACAGCTG  
CAGTTATGAAGATTTTTGATGCTGCCAAAGCACCTATTAGTGGGAGGAGCGGAACGTCAGTCCATTCAAGGAC  
CTGGAGGAAAGTGGATGATCCCTTCAGAGGCTAAAGAGTCCATGGATAAGAACAAGATGGGCTTGAAAGGCCCTT  
TGAAGACCCCAATAGCAGCCGGTCACCCATCTATGAATTTACTGCTGCGCAAAACATTTGACCTTTACGCGAATG  
TCCGACCATGTGTCTCTATCGAAGGCTATAAAACCCCTTACACCGATGTAAATATTGTGACCATTGAGAGAACA  
CAGAAGGAGAATACAGTGAATTGAGCATGTGATTGTTGATGGAGTCGTGCAGAGTATCAAGCTCATCACCGAGG  
GGGCGAGCAAGCGCATTGCTGAGTTTGCCCTTGAGTATGCCCGGAACAACCACCGGAGCAACGTCACGGCGGTGC  
ACAAAGCCAACATCATGCGGATGTCAGATGGGCTTTTTCTACAAAATGCAGGGAAGTTGCAGAAAGCTGTAAAG  
ATATTAAATTTAATGAGATGTACCTTGATACAGTATGTTGAATATGGTACAAGATCCTTCCCAATTTGATGTTT  
TTGTTATGCCAAATTTGATGGAGACATCCTTAGTGACTTGTGTGCAGGATTGATCGGAGGTCTCGGTGTGACAC  
CAAGTGGCAACATTGGAGCCAATGGGGTTGCAATTTTGAGTCGGTTCATGGGACGGCTCCAGACATTGCAGGCA  
AGGACATGGCGAATCCCACAGCCCTCCTGCTCAGTGCCGTGATGATGCTGCGCCACATGGGACTTTTTGACCATG  
CTGCAAGAATTGAGGCTGCGTGTGTTTGCTAGAATTAAGGACGGAAAGAGCTTGACAAAAGATTTGGGAGGCAATG  
CAAAATGCTCAGACTTCACAGAGGAAATCTGTCGCCGAGTAAAAGATTTAGATTAACACTTCTACAAGTGCATT  
TACATCAGTCACTCTAAATGGACACCACATGAACCTCTGTTTGAATACCTACGTATGTATGCATTGGTTTGCTT  
GTTTCTTGACAGTACATTTTTAGATCTGGCCTTTTCTTAACAAAATCTGTGCAAAAGATGCAGGTGGATGTCCCT  
AGGTCTGTTTTCAAAGAATTTTTCCAAGTGCTTGTGTTTATTTATTAAGTGTCTACCTGGTAAATGTTTTTTTG  
TAAACTCTGAGTGGACTGTATCATTTGCTATTCTAAACCATTTTACACTTAAGTTAAAATAGTTTCTCTTCAGCT  
GTAAATAACAGGATACAGAATTAACAAGAGAAAATGTCTAACTTTTTAAGAAAACCTTATTTTTCTTCGGTTTTT  
GAAAACATAATGGAAATAAAACAGGATATTGACATAATAGCACAAAATGACACTCTTCTAAACTAAATGGGCA  
CAAGAGAATTTTCTGGGAAAGTTACATCAAAAAGAGTGAATGTGGTATATTTCTAAATGATATGGAAAATAGA  
GACAGATTTGTCCTTTACAGAAATTACTGAGTGTGAATAAAAACTTCAGATCCAAGAAATATATAATGAGAGATA  
TAATTTTTGTTAATAAGACAAAGGTAATATATTGGATACAAAGACACAAATGTATTGTGTGTTCAATTATTTGT  
TGTCTTGAGATTTAATATTCTTTCCAAGAGCTTTTAATGAAGCAGAGAGCTAGTACTTCATTTTCACTGGATACA  
TTTTCAGCATCATGAGTTGTCACAGCCTCTGAGCCCTGATCTGAAGCCAGAAGGGCTGAGTGTATTGTAACTT  
ATTCTTGCAATGTTGCTGTCTGGGAATGGACCACACTACAGCAGGTAGTTCTGGGGGCGATACTGCCGAAAGGCC  
GAACACATGTATTTTGGCTGCAATTGAGGAACCTGGGATGCTATTAATTTTGTATTTTACGCAACTGCCCTTCTC  
CTATCCCAAAGCACCAATTACTGCCCTCTGCCTCAGCAGTACCAGTATAAGATGACATTCCAAAGACTGGAGGCA  
ACTCAGCCTGAGTTAATTCACAAAATTATGCCATGCTGGGGCTTGAGCTTGAGCTTGGGCTTAGGCTTGGGCTCA  
GCTTTTGACCCTCAGGCATCTCCTTTTCTTCTGCTTCTCCTCTCCCTTCTCCTCTGCTGCAGCATGATTTTCTT  
AATCTTCAGACACTCACTATTTTCTATGAACAGTTACCCTCTGTCCCCACAACCAAGACAACCTCATGGCCTCCTT  
TGGCCCTTGTGTAACATTGCAAACCTGTGGCTTTGCAAAATGTACCCAGGTCACAAGGGGATTTTTTTTTTTTA  
GCAATGATATCCCTGTCTGGGTCACTTTTTTAAGCTTGTAACCGCCCCCAGACTTATAATCTTAAATGTATTTT  
CCTTTGTTTAAGCTGCTGCTTCTGTTTCATTGGATTGTGCCAGTTATCAGTGGCTCTTGGGTTCAAAGTAAT  
AAA

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**FIGURE 210**

MAGPAWISKVSRLLGAFHNPKQVTRGFTGGVQTVTLIPGDGIGPEISAAVMKIFDAAKAPIQWEERNVTAIQGPG  
GKWMIPSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLLLRKTFDLYANVRPCVSIIEGYKTPYTDVNIIVTIRENTE  
GEYSGIEHVIVDGVVQSIKLITEGASKRIAFAFEYARNNHRSNVTAVHKANIMRMSDGLFLQKCREVAESCKDI  
KFNEMYLDTVCLNMVQDPSQFDVLVMPNLYGDILSDLCAGLIGGLGVTPSGNIGANGVAIFESVHGTAPDIAGKD  
MANPTALLLSAVMMLRHMGLFDHAARIEAACFATIKDGKSLTKDLGGNAKCSDFTEEICRRVKDLD



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**FIGURE 211**

GCGCGCCTTCTCCAGTCCGCGGTGCC**ATGG**CCCCCGCCCGTCTGTTTCGCGCTGCTGCTGCTCTTCGTAGGCGGAG  
TCGCCGAGTCGATCCGAGAGACTGAGGTCATCGACCCCCAGGACCTCCTAGAAGGCCGATACTTCTCCGGAGCCC  
TACCAGACGATGAGGATGTAGTGGGGCCCCGGGCAGGAATCTGATGACTTTGAGCTGTCTGGCTCTGGAGATCTGG  
ATGACTTGGAAGACTCCATGATCGGCCCTGAAGTTGTCCATCCCTTGTTGCCTCTAGATAACCATATCCCTGAGA  
GGGCAGGGTCTGGGAGCCAAAGTCCCCACCGAACCCAAGAACTAGAGGAGAATGAGGTTATCCCCAAGAGAATCT  
CACCCGTTGAAGAGAGTGAGGATGTGTCCAACAAGGTGTCAATGTCCAGCACTGTGCAGGGCAGCAACATCTTTG  
AGAGAACGGAGGTCTTGGCAGCTCTGATTGTGGGTGGCATCGTGGGCATCCTCTTTGCCGTCTTCTGATCCTAC  
TGCTCATGTACCGTATGAAGAAGAAGGATGAAGGCAGCTATGACCTGGGCAAGAAACCCATCTACAAGAAAGCCC  
CCACCAATGAGTTCTACGCG**TGA**AGCTTGCTTGTGGGCACTGGCTTGGACTTTAGCGGGGAGGGGAAGCCAGGGGA  
TTTTGAAGGGTGGACATTAGGGTAGGGTGAGGTCAACCTAATACTGACTTGTGAGTATCTCCAGCTCTGATTACC  
TTTGAAGTGTTCAGAAGAGACATTGTCTTCTACTGTTCTGCCAGGTTCTTCTTGAGCTTTGGGCCTCAGTTGCC  
TGCCAGAAAAATGGAATCAACTTGGCCTTTCTGAAGGCAAGACTGGGATTGGATCACTTCTTAAACTTCCAGTTA  
AGAATCTAGGTCCGCCCTCAAGCCCATACTGACCATGCCTCATCCAGAGCTCCTCTGAAGCCAGGGGGCTAACGG  
ATGTTGTGTGGAGTCTTGGCTGGAGGTCTCCCCCAGTGGCCTTCTCCTTCTTTTACAGCCGGTCTCTCTGC  
CAGGAAATGGGGGAAGGAAGTGAACACCTGCACCTTGAGATGTTTCTGTAAATGGGTACTTGTGATCACACTA  
CGGGAATCTCTGTGATATATACCTGGGGCCATTCTAGGCTCTTCAAGTACTTTTGGAAATCAACCTTTTTTAT  
TTGGGGGGGAGGATGGGGAAAAGAGCTGAGAGTTTATGCTGAAATGGATTATAGAATATTTGTAAATCTATTTT  
TAGTGTGTTGTTGTTTTTTTTAACTGTTTCACTTCTTGTGTCAGAGTGTATATCTCTGCCTGGGCAAGAGTGTGGAG  
GTGCCGAGGTGTCTTCACTCTCTGCACATTTCCACAGCACCTGCTAAGTTTGTATTTAATGGTTTTTGTTTTTG  
TTTTTGTGTTGTTTCTTGAAGTGAAGAGAGCCGGAGAGATGATTTTTTATTAATTTTTTTTTTTTTTTTTT  
TACTATTTATAGCTTTAGATAGGGCCTCCCTTCCCCCTCTTCTTTCTTTGTTCTCTTTCATTAAACCCCTTCCCCA  
GTTTTTTTTTTTATACTTTAAACCCCGCTCCTCATGGCCTTGGCCCTTTCTGAAGCTGCTTCCCTCTTATAAAATAG  
CTTTTGCCGAAACATAGTTTTTTTTTTAGCAGATCCCAAAATATAATGAAGGGGATGGTGGGATATTTGTGTCTGT  
GTTCTTATAATATATTATTATTCTTCTTGGTTCTAGAAAAATAGATAAATATATTTTTTTTTCAGGAAATAGTGTG  
GTGTTTCCAGTTTGATGTTGCTGGGTGGTTGAGTGAGTGAATTTTCATGTGGCTGGGTGGGTTTTTGCCTTTTTT  
TCTTGCCCTGTTTCTGGTGCTTCTGATGGGGCTGGAATAGTTGAGGTGGATGGTTCTACCTTTCTGCCTTCTG  
TTTGGGACCCAGCTGGTGTCTTTGGTTTGTCTTCTTTCAGGCTCTAGGGCTGTGCTATCCAATACAGTAACCACA  
TGCGGCTGTTTAAAGTTAAGCCAATTAAAAATCACATAAGATTAAAAATTCCTTCCTCAGTTGCACTAACACGTT  
TCTAGAGGCGTCACTGTATGTAGTTTCACTGCTACTGACAGCGAGAGCATGTCCATCTGTTGGACAGCACT  
ATTCTAGAGAACTAACTGGCTTAAACGAGTCACAGCCTCAGCTGTGCTGGGACGACCCTTGTCTCCCTGGGTAGG  
GGGGGGGGAATGGGGGAGGGCTGATGAGGCCCCAGCTGGGGCCTGTTGTCTGGGACCCTCCCTCTCCTGAGAGGG  
GAGGCCTGGTGGCTTAGCCTGGGCAGGTCTGTCTCCTCTGACCCAGTGGCTGCGGTGAGGGGAACCACTC  
CCTTGCTGCACCACTGGCCATTAGCTCCCGTCACCACTGCAACCCAGGGTCCAGCTGGCTGGGTCTCTTCTGC  
CCCCAGTGCCCTTCCCTTGGGCTGTGTTGGAGTGAGCACCTCCTCTGTAGGCACCTCTCACACTGTTGTCTGTT  
ACTGATTTTTTTTGATAAAAAGATAATAAACCTGGTACTTTCTAAAAA

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**FIGURE 212**

MAPARLFALLLLFVGGVAESIRETEVIDPQDLLEGRYFSGALPDDEDVVGPGQESDDFELSGSGDLDDLEDSMIG  
PEVVHPLVPLDNHUPERAGSGSQVTEPKKLEENEVIPKRISPVEESEDVSNKVSMSSTVQGSNIFERTEVLAAL  
IVGGIVGILFAVFLILLMYRMKKKDEGSYDLGKKPIYKKAPTNEFYA

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**FIGURE 213A**

CAAGTGCCGTCGCCGCGCCCCCTTCCCCCTCCCGCCTCCCGGCCCCCTCCCGGAAACCGGCGGTTCGAGCTACGGT  
CGCGGACGAGTGGAACCGAGACTGCCCCGCGGAGCCGCGGTATGAGCGCCCCCTCGCCACCCCGTGTCCCAGGCC  
CGGCCCTTTCTGACAAGAGCTAGACTTCGGGCTCCTTGAGGATATTCAGTTTTGTATGTTTGAATATCCTCTCACC  
ATGTTTCAGCATAAAGTACCATTCTTAATGATTATCCTCAACAAGACAGGTGTGAGAGGGTTGCTGTTGCATTGCA  
ATCATGGTGCAAAAATACCAGTCCCCAGTGAGAGTGTACAAATACCCCTTTGAATTAATTATGGCTGCCTATGAA  
AGGAGGTTCCCTACATGTCCTTTGATTCCGATGTTTCGTGGGCAGTGACACTGTGAGTGAATTCAAGAGCGAAGAT  
GGGGCTATTTCATGTCATTGAAAGGCGCTGCAAGCTGGATGTAGATGCACCCAGACTGCTGAAGAAGATTGCAGGA  
GTTGATTATGTTTATTTTGTCCAGAAAACTCACTGAATTCTCGGGAACGTACTTTGCACATTGAGGCTTATAAT  
GAAACGTTTTTCCAATCGGGTCATCATTAAATGAGCATTGCTGCTACACCGTTACCCCTGAAAATGAAGATTGGACC  
TGTTTTGAACAGTCTGCAAGTTTAGATATTAAATCTTTCTTTGGTTTTTGAAGTACAGTGGAAGAAATGCAATG  
AAACAATATACCAGCAACATTAAAAAGGAAAGGAAATCATCGAATACTACCTTCGCCAATTAGAAGAAGAGGC  
ATAACCTTTGTGCCCCGTTGGAGTCCGCCCTCCATCACGCCCTCTTCAGAGACATCTTCATCATCTCCAAGAAA  
CAAGCAGCGTCCATGGCCGTCGTCATCCCAGAAGCTGCCCTCAAGGAGGGGCTGAGTGGTGATGCCCTCAGCAGC  
CCCAGTGACCTGAGCCCGTGGTGGGCACCCCTGACGACAACTAGATGCCGACCACATCAAGAGATACCTGGGC  
GATTTGACTCCGCTGCAGGAGAGCTGCCTCATTAGACTTCGCCAGTGGCTCCAGGAGACCCACAAGGGCAAAATT  
CCAAAAGATGAGCATATTCTTCGGTTCCCTCCGTGCACGGGATTTTAATATTGACAAAGCCAGAGAGATCATGTGT  
CAGTCTTTGACGTGGAGAAAGCAGCATCAGGTAGACTACATTCTTGAACCTGGACCCCTCCTCAGGTCTTCAG  
GATTACTACGCGGGAGGCTGGCATCATCACGACAAAGATGGGCGGCCCTCTACGTGCTCAGGCTGGGGCAGATG  
GACACCAAAGGCTTGGTGAGAGCGCTCGGGGAGGAAGCCCTGCTGAGATACGTTCTCTCCGTAAATGAAGAACGG  
CTAAGGCGATGCGAAGAGAATACAAAAGTCTTTGGTCGGCCTATCAGCTCATGGACCTGCCTGGTGGACTTGGAA  
GGGCTGAACATGCGCCACTTGTGGAGACCTGGTGTGAAAGCGCTGCTGCGGATCATCGAGGTGGTGGAGGCCAAC  
TACCCTGAGACACTGGGCCGCCCTTCTCATCTCGGGGCGCCAGGGTATTTCTGTGCTCTGGACGCTGGTTAGT  
CCGTTTCATTGATGACAACACCAGAAGGAAGTTCCTCATTATGCAGGAAATGACTACCAGGGTCTGGAGGCCTG  
CTGGATTACATCGACAAAGAGATTATTCCAGATTTCCTGAGTGGGGAGTGCATGTGCGAAGTGCCAGAGGGTGG  
CTGGTCCCCAAATCTCTGTACCGGACTGCAGAGGAGCTGGAGAACGAAGACCTGAAGCTCTGGACTGAGACCATC  
TACCAGTCTGCAAGCGTCTTCAAAGGAGCCCCACATGAGATTCTCATTAGATTGTGGATGCCTCGTCAGTCATC  
ACTTGGGATTTTCGACGTGTGCAAAGGGGACATTGTGTTTAAACATCTATCACTCCAAGAGGTGCCACAACCACCC  
AAAAAGGACTCCCTGGGAGCCACAGCATCACCTCTCCGGGTGGGAACAATGTGCAGCTCATAGACAAAGTCTGG  
CAGCTGGGCCGCGACTACAGCATGGTGGAGTCGCTCTGATCTGCAAAGAAGGAGAAAGCGTGCAGGGTTCCCAT  
GTGACCAGGTGGCCGGGCTTCTACATCCTGCAGTGGAATTCACAGCATGCCTGCGTGCGCCGCCAGCAGCCTT  
CCCCGGGTGGACGACGTGCTTGCCTCCCTGCAGGTCTCTTCGCACAAGTGTAAGTGATGTACTACACCGAGGTG  
ATCGGCTCGGAGGATTTTCAGAGGTTCATGACGAGCCTGGAGTCCAGCCACAGCGGCTTCTCCAGCTGAGTGCC  
GCCACCACCTCTCCAGCCAGTCCCACCTCCAGCTCCATGATCTCCAGGTAGTGCCGCGCTGCCTGCACCTAGTGT  
GCAGAGGGGACGGCCGCCCTCCTCGGACAGCAGCTGCACCCGCCACCCAGCGGCGACATTGTACAGACTCCTC  
TCACCTCTAGATAGCAAATAGCTCTCAGATGGTAAACGTAGTCGTTTGATCCCAAACTACCTTGGCAGGTAGTT  
TTAACTCTGATCCTAACTTAACTCAATAGCCATAGATTTTGTATACGTTGTGCACAAAATCCAACCAGAGCGCAA  
GGGCTCTCTTGAAAGAAAAGTAGTTTCTGTACCAATTAAAGGATTGACGTGGTCTCAGATATTGATGCAAAAAAT  
TTTTCCAACGAACCTCCGCATTGTCCATTAGTGAATGAATTCCTGTGACATCCTCCAGAGATGGCCCTCCTCACC  
TGGGACGGAAGCTGCCAGCTCGCTTCCCCAAGCTGCCTCATGGCCCGCACGCCGCTCACGGCCCCCATGCTTC  
CCGCCAGTCAAGATGGTCTGTGGACTTAGGGCCAGCCCTGAGGTCTTATCCTCTGAGGATTAGAGGTTGCCT  
GCGGAGTACCTTGTCCCAGGGCCAGACACACCCACCCACTGTCTGCAGTGGGGCCGGGGGCTCAGGAGGG  
GCTCTCAGGGACTCCTGGTGACTCCAGGAAAATGCTGCCATCGTTAAACATTACTTTCTCTTCTCCTTTTCAA  
ATCTTTTGTACTTTTTAGAGCAGGATTTTTCTGTATGTGAACTGGGTGGGGGGTCTTCCCGTTTCTTCC  
GTGCGTCGCCCCCTCACCTGCAGTCAGCTCCCAGCCAGTGATAGGCCATCTCCTCTGTGCCCTCTGGAGGCTCA  
TTGCTCAGAGCCCAGACAGTTCCAGCCACTAGGAGGCCGTCTTGGAAACCAGCAAGTCGCATTGCCACTTGACA  
CTGTCCATGGGGTTTTATTAGTAGCTAAGCAGCAGCTCTCGCATCCACTTCAGGGTGGCGTGTGGCATGTAGGAG  
TCCTGCTTCTTTGTACATGGGAATTGTGGACTCATGCGTGTGTGTGTGTGTCATGTGCTGTGTGTGTGTCATGTGTG  
CATGACGGTGGGGGTGCTGGGGGACGGGGTGAGTGGAACCTTAGTTTGTAGTAATGAAGGAATCTTCACAGAAGC

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**FIGURE 213B**

AAATCAGAATATGGGATTTGTTTGCCTTTTACATTTTGTTTAATTCCTGATTTTAAAGCCTGCTCTATCTGGTAC  
AGGCCCTTATTTTTTCAGCTTTTTATGGGAAAAGCAGGTTATTTGAGAATCTGTCCAGAAGTTGCATAGGGGATG  
GCCTCCACGATAAGGACATGCAACACGTGTTTCTGTGTGCAGCAGAGGCCGTGTTTTTCATGCCAAACCCACGC  
GGCTGTCAACTGTGTGCGTGGTAGGCATGGAGATCCTGGTTGTGCCGTCTCAGCTCCGCTCTGAAGGCACTGTGT  
GGGTGCTGCGTGACTGGAGAGCTGTGTGGAGGCCATGTGTGCCCCGTGCAGGGATCAGGAGGGCGGGGAGGGAC  
CGAGCAGCCCTCTTGCCCGGTGCGGTGAGCCCTAGTGGCTGCCTGCACACTGTAGACGTCCCAGGGCCTGTGCTG  
TGATCACCTGCCTTTGGACCACATTTGTGTTTGCTCTTAGAGATCGAGCTCCTCAGTGGTACCTGAAGCCTTTGC  
TTCCGGAAAGCGCGGTAGGGTTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTA  
GTAGGTAGGGTTAGTAGGTAGGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGG  
TTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGT  
GGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGTTTCGTAGGTAGGGCTAGTAG  
GTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTTCGTAGGTAGGGCTGG  
TAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGC  
TAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAG  
GGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGG  
TAGGGCTAGTAGGTAGGGTTTCGTAGGTAGGGTTTCGTAGGTAGGGTTTCGTAGGTAGGGTTAGTAGCGCGTCTGTGC  
TGCTTCCACCTGGTGCCTTCCTGTTCCCAAATCACAAGGGCCTGAAGGTGGTCCCTGCTTTCTTTCTCTTTCTC  
TGTGTCTCAGATGGCGATTTTGTGTGACAGCTGCCAAGAAAATGCTTCACTCAACAGTCCTCATGTGCCAGAGAT  
GTTTATAGAACTGTTTGAATTGCAGCCATCCCTGCCCCCTCCCAGGCTGAAGATCTGTTCTTTTTAAGTTGATT  
CGGGAGTGGCATTCTTTTATACCCAAAGACTGTAGTGCATCTTGAAGAGCTCAAAGCACATGACCGCACAAATGC  
TTACAGGGTTTCCTCCCGAGTAATCCAATCTCACTCCCTTGTAAGGGAATTCTGGGGCAGCTATGGTTTGAGTA  
TGCAGTTTGCATCGTGTCTTACCTTTAGTACCTTGCCACTCTTTTAAAACGCTGCTGTCATTTCCATTCTTA  
GTACTAATGATTCTTTGATTCTCCCTCTATTATGTCTTAATTCACCTTCCTTCCTAAATTTGTTATTTGCATATC  
AAATTCTGTAAATGTTTTGTAAACATATTACCTCACTTGGTAATACAATACTGATAGTCTTTAAAAGATTTTTTT  
ATTGTTATCAATAATAAATGTGAACATTTTAAAG

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**FIGURE 214**

MVQKYQSPVRVYKYPFELIMAAYERRFPTCLIPMFVGS DTVSEFKSEDGAIHVIERRCKLDVDAPRLLKKIAGV  
DYVYFVQKNSLNSRERTLHIEAYNETFSNRVIINEHCCYTVHPENEDWTCFEQSASLDIKSFFGFESTVEKIAMK  
QYTSNIKKGKEII EYYLRQLEEEGITFVPRWSPPSITPSSETSSSSSSKKQAASMAVVIPEAALKEGLSGDALSSP  
SAPEPVVGT PDDKLDADHIKRYLGDLTPLQESCLIRLRQWLQETHKGKIPKDEHILRFLRARDFNIDKAREIMCQ  
SLTWRKQH QVDYILETWTPPQVLQDY YAGGWHHHDKGRPLYVLR LGQMDTKGLVRALGEEALLRYVLSVNEERL  
RRCEENTKV FGRPISSWTCLVDLEGLNMRHLWRPGVKALLRIIEVVEANYPETLGRL LILRAPRVFPVLWTLVSP  
FIDDNTRRKFLIYAGNDYQGP GGLLDYIDKEIIPDFLSGECMCEVPEGGLVPKSLYRTAEEL ENEDLKLWTETIY  
QSASVFKGAPHEILIQIVDASSVITWDFDVCKGDIVFNIYHSKRSPQPPKKDSLGAHSITSPGGNNVQLIDKVWQ  
LGRDYSMVESPLICKEGESVQGSHVTRWPGFYILQWKFHSMPCAASSLPRVDDVLASLQVSSHCKCKVMYYTEVI  
GSEDFRGSMTSLESSHSGFSQLSAATTSSSQSHSSSMISR

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**FIGURE 215**

AGAGCGGAGGCCGCACTCCAGCACTGCGCAGGGACCGCCTTGGACCGCAGTTGCCGGCCAGGAATCCCAGTGTCA  
CGGTGGACACGCCTCCCTCGCGCCCTTGCCGCCCACCTGCTCACCAGCTCAGGGGCTTTGGAATTCTGTGGCCA  
CACTGCGAGGAGATCGGTTCTGGGTGCGAGGCTACAGGAAGACTCCCCTGAAATCTGGAGTGAAGAACGC  
CGCCATCCAGCCACCATTCCAAGGAGGTGCAGGAGAAGAGCTCTGTGATACCATTAACTTGTGACATTACTTT  
TATTTGAAGGAACGTATATTAGAGCTTACTTTGCAAAGAAGGAAGATCGTTGTTTCCGAAGTGGACATCGCAAAA  
GCTGATCCAGCTGCTGCATCCACCCCTCTATTACTGAATGGAGATGCTACTGTGGCCCAGAAAAATCCAGGCTCG  
GTGGCTGAGAACAACCTGTGCAGCCAGTATGAGGAGAAAGGTGCGCCCTGCATCGACCTCATTGACTCCCTGCGG  
GCTCTAGGTGTGGAGCAGGACCTGGCCCTGCCAGCCATCGCCGTCATCGGGGACCAGAGCTCGGGCAAGAGCTCC  
GTGTTGGAGGCACTGTCAGGAGTTGCCCTTCCCAGAGGCAGCGGGATCGTGACCAGATGCCCGCTGGTGTGAAA  
CTGAAGAACTTGTGAACGAAGATAAGTGGAGAGGCAAGGTCAGTTACCAGGACTACGAGATTGAGATTTCCGAT  
GCTTCAGAGGTAGAAAAGGAAATTAATAAAGCCCAGAATGCCATCGCCGGGAAGGAATGGGAATCAGTCATGAG  
CTAATCACCCCTGGAGATCAGCTCCCAGATGTCCCGGATCTGACTCTAATAGACCTTCCTGGCATAACCAGAGTG  
GCTGTGGGCAATCAGCCTGCTGACATTGGGTATAAGATCAAGACACTCATCAAGAAGTACATCCAGAGGCAGGAG  
ACAATCAGCCTGGTGGTGGTCCCCAGTAATGTGGACATCGCCACCACAGAGGCTCTCAGCATGGCCAGGAGGTG  
GACCCCGAGGGAGACAGGACCATCGGAATCTTGACGAAGCCTGATCTGGTGGACAAAGGAAGTGAAGACAAGGTT  
GTGGACGTGGTGCAGAACCTCGTGTTCACCTGAAGAAGGTTACATGATTGTCAAGTGCCGGGGCCAGCAGGAG  
ATCCAGGACCAGCTGAGCCTGTCCGAAGCCCTGCAGAGAGAGAAGATCTTCTTTGAGAACCACCCATATTTTCAGG  
GATCTGCTGGAGGAAGGAAAGGCCACGTTCCCTGCCTGGCAGAAAACTTACCAGCGAGCTCATCACACATATC  
TGTAATCTCTGCCCTGTAGAAAATCAAATCAAGGAGACTCACCAGAGAATAACAGAGGAGCTACAAAAGTAT  
GGTGTGACATACCGGAAGACGAAAATGAAAAATGTTCTTCTGATAGATAAAATTAATGCCTTTAATCAGGAC  
ATCACTGCTCTCATGCAAGGAGAGGAACTGTAGGGGAGGAAGACATTCGGCTGTTTACCAGACTCCGACACGAG  
TTCCACAAATGGAGTACAATAATTGAAAACAATTTTCAAGAAGGCCATAAAATTTTGAAGTAGAAAAATCCAGAAA  
TTTGAAAATCAGTATCGTGGTAGAGAGCTGCCAGGCTTTGTGAATTACAGGACATTTGAGACAATCGTGAAACAG  
CAAATCAAGGCACTGGAAGAGCCGGCTGTGGATATGCTACACACCGTGACGGATATGGTCCGGCTTGCTTTTACA  
GATGTTTCGATAAAAAATTTTGAAGAGTTTTTTAACCTCCACAGAACCGCCAAGTCCAAAATTGAAGACATTAGA  
GCAGAACAAAGAGAGAGAAGGTGAGAAGCTGATCCGCTCCACTTCCAGATGGAACAGATTGTCTACTGCCAGGAC  
CAGGTATACAGGGGTGCATTGCAGAAGGTGAGAGAGAAGGAGCTGGAAGAAGAAAAGAAAGAAATCCTGGGAT  
TTTGGGGCTTTCCAGTCCAGCTCGGCAACAGACTCTTCCATGGAGGAGATCTTTCAGCACCTGATGGCCTATCAC  
CAGGAGGCCAGCAAGCGCATCTCCAGCCACATCCCTTTGATCATCCAGTTCTTTCATGCTCCAGACGTACGGCCAG  
CAGCTTCAGAAGGCCATGCTGCAGCTCCTGCAGGACAAGGACACCTACAGCTGGCTCCTGAAGGAGCGGAGCGAC  
ACCAGCGACAAGCGGAAGTTTCTGAAGGAGCGGCTTGACAGGCTGACGAGGCTCGGCGCCGGCTTGCCAGTTT  
CCCGGT**TAA**CCACACTCTGTCCAGCCCCGTAGACGTGCACGCACACTGTCTGCCCCGTTCCCGGTAGCCACTG  
GACTGACGACTTGAGTGTCTAGTAGTCAGACTGGATAGTCCGTCTCTGCTTATCCGTTAGCCGTGGTGATTTAGC  
AGGAAGCTGTGAGAGCAGTTTGGTTTCTAGCATGAAGACAGAGCCCCACCTCAGATGCACATGAGCTGGCGGGA  
TTGAAGGATGCTGTCTTCGTACTGGGAAAGGGATTTTTCAGCCCTCAGAATCGCTCCACCTTGACGCTCTCCCTT  
CTCTGTATTCTAGAACTGACACATGCTGAACATCACAGCTTATTTCTCATTTTATAATGTCCTTACAAA  
CCAGTGTTTTTAGGAGCATGAGTGCCGTGTGTGTGCGTCCTGTGCGAGCCCTGTCTCCTCTCTGTAATAAACT  
CATTTCTAGCAG

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**FIGURE 216**

MVVSEVDIAKADPAAASHPLLLNGDATVAQKNPGSVAENNLCSQYEEKVRPCIDLIDSLRALGVEQDLALPAIAV  
IGDQSSGKSSVLEALSGVALPRGSGIVTRCPLVLKLLKLVNEDKWRGKVSQDYIEIEISDASEVEKEINKAQNAI  
AGEGMGISHELITLEISSRDVPDLTLIDLPGITRVAVGNQPADIGYKIKTLIKKYIQRQETISLVVVP SNVDIAT  
TEALSMAQEVDPEDRTIGILTKPDLVDKGTEDKVVDVVRNLVFHLKKGYMIVKCRGQQEIQDQLSLSEALQREK  
IFFENHPYFRDLLEEGKATVPCLAEKLTSELITHICKSLPLENQIKETHQRITEELQKYGVDIPEDENEKMFFL  
IDKINAFNQDITALMQGEETVGEEDIRLFTRLRHEFHKWSTIIENNFOEGHKILSRKIQKFENQYRGRELPGFVN  
YRTFETIVKQQIKALEEPAVDMLHTVTDMVRLAFTDVSINKFEEFFNLHRTAKSKIEDIRAEQEREKEKLIRLHF  
QMEQIVYCQDQVYRGALQKVREKELEEEKKKKSDFGAFQSSSATDSSMEEIFQHLMAYHQEASKRISSHIPLII  
QFFMLQTYGQQLQKAMLQLLQDKDTYSWLLKERSDTSKRRKFLKERLARLTQARRRLAQFPG

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**FIGURE 217**

GCCGGCCGAACCCAGACCCGAGGTTTTAGAAAGCAGAGTCAGGCGAAGCTGGGCCAGAACC GCGACCTCCGCAACC  
TTGAGCGGCATCCGTGGAGTGCGCCTGCGCAGCTACGACCGCAGCAGGAAAGCGCCGCCGAGGCCAGCTGT  
GGCCGGACAGGGACTGGAAGAGAGGACGCGGTCTGAGTAGGTGTGCACCAGCCCTGGCAACGAGAGCGTCTACCCC  
GAACTCTGCTGGCCTTGAGGTGGGGAAGCCGGGGAGGGCAGTTGAGGACCCCGCGGAGGCGCGTGACTGGTTGAG  
CGGGCAGGCCAGCCTCCGAGCCGGGTGGACACAGGTTTTTAAACATGAATCCTACACTCATCCTTGCTGCCTTTT  
GCCTGGGAATTGCCTCAGCTACTCTAACATTTGATCACAGTTTAGAGGCACAGTGGACCAAGTGAAGGCGATGC  
ACAACAGATTATACGGCATGAATGAAGAAGGATGGAGGAGAGCAGTGTGGGAGAAGAACATGAAGATGATTGAAC  
TGCACAATCAGGAATACAGGGAAGGGAAACACAGCTTCACAATGGCCATGAACGCCTTTGGAGACATGACCAGTG  
AAGAATTCAGGCAGGTGATGAATGGCTTTCAAACCGTAAGCCCAGGAAGGGGAAAGTGTTCCAGGAACCTCTGT  
TTTATGAGGCCCCCAGATCTGTGGATTGGAGAGAGAAAGGCTACGTGACTCCTGTGAAGAATCAGGGTCAGTGTG  
GTTCTTGTGGGCTTTTAGTGCTACTGGTGCTCTTGAAGGACAGATGTTCCGAAAACCTGGGAGGCTTATCTCAC  
TGAGTGAGCAGAATCTGGTAGACTGCTCTGGGCCTCAAGGCAATGAAGGCTGCAATGGTGGCCTAATGGATTATG  
CTTTCCAGTATGTTT CAGGATAATGGAGGCCTGGACTCTGAGGAATCCTATCCATATGAGGCAACAGAAGAATCCT  
GTAAGTACAATCCCAAGTATTCTGTTGCTAATGACACCGGCTTTGTGGACATCCCTAAGCAGGAGAAGGCCCTGA  
TGAAGGCAGTTGCAACTGTGGGGCCATTTCTGTTGCTATTGATGCAGGTCATGAGTCCTTCTGTTCTATAAAG  
AAGGCATTTATTTTGAGCCAGACTGTAGCAGTGAAGACATGGATCATGGTGTGCTGGTGGTTGGCTACGGATTG  
AAAGCACAGAATCAGATAACAATAAATATTGGCTGGTGAAGAACAGCTGGGGTGAAGAATGGGGCATGGGTGGCT  
ACGTAAAGATGGCCAAAGACCGGAGAAACCATTGTGGAATTGCCTCAGCAGCCAGCTACCCCACTGTGTGAGCTG  
GTGGACGGTGATGAGGAAGGACTTGACTGGGGATGGCGCATGCATGGGAGGAATTCATCTTCAGTCTACCAGCCC  
CCGCTGTGTCGGATACACACTCGAATCATTGAAGATCCGAGTGTGATTTGAATTCTGTGATATTTTACACTGGT  
AAATGTTACCTCTATTTTAATTACTGCTATAAATAGGTTTATATTATTGATTCACTTACTGACTTTGCATTTTCG  
TTTTTAAAGGATGTATAAATTTTACCTGTTTAAATAAAATTTAATTTCAAATGTA



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**FIGURE 218**

MNPTLILAAFCGLGASATLTFDHSLEAQWTKWKAMHNRLYGMNEEGWRRVWEKNMKMIELHNQEYREGKHSFTM  
AMNAFGDMTSEEFQVMNGFQNRKPRKGKVFQEPLFYEAPRSVDWREKGYVTPVKNQGQCGSCWAFSATGALEGQ  
MFRKTGRLISLSEQNLVDCSGPQGNEGCNGGLMDYAFQYVQDNGGLDSEESYPYEATEESCKYNPKYSVANDTGF  
VDIPKQEKALMKAVATVGPISVAIDAGHESFLFYKEGIYFEPDCSSDMDHGVLVVGYGFESESDNNKYWLVKN  
SWGEEWGMGGYVKMAKDRRNHCGIASAASYPTV

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**FIGURE 219**

CTTTTTTACACCTTCTTCCACATTCTCATGCAAGTCACCACCATAGTCATAGCCATGAAGAACCAGCAATGGAAA  
TGAAAAGAGGACCACCTTTTCAGTCATCTGTCTTCTCAAAACATAGAAGAAAGTGCCTATTTTGATTCCACGTGGA  
AGGGTCTAACAGCTCTAGGAGGCCTGTATTTTCATGTTTCTTGTTGAACATGTCCTCACATTGATCAAAACAATTTA  
AAGATAAGAAGAAAAAGAATCAGAAGAAACCTGAAAAATGATGATGATGTGGAGATTAAGAAGCAGTTGTCCAAGT  
ATGAATCTCAACTTTCAACAAATGAGGAGAAAAGTAGATACAGATGATCGAACTGAAGGCTATTTACGAGCAGACT  
CACAAGAGCCCTCCCACCTTTGATTCTCAGCAGCCTGCAGTCTTGGAAGAAGAAGAGGTCATGATAGCTCATGCTC  
ATCCACAGGAAGTCTACAATGAATATGTACCCAGAGGGTGCAAGAATAAATGCCATTACATTTCCACGATACAC  
TCGGCCAGTCAGACGATCTCATTACCACCACATCATGACTACCATCATATTCTCCATCATCACCACCACCAAAACC  
ACCATCCTCACAGTCACAGCCAGCGCTACTCTCGGGAGGAGCTGAAAGATGCCGGCGTCGCCACTTTGGCCTGGA  
TGGTGATAATGGGTGATGGCCTGCACAATTTACGCGATGGCCTAGCAATTGGTGCTGCTTTTACTGAAGGCTTAT  
CAAGTGGTTTTAAGTACTTCTGTTGCTGTGTTCTGTCTATGAGTTGCCTCATGAATTAGGTGACTTTGCTGTTCTAC  
TAAAGGCTGGCATGACCGTTAAGCAGGCTGTCTTTATAATGCATTGTGAGCCATGCTGGCGTATCTTGGAATGG  
CAACAGGAATTTTTCATTGGTCATTATGCTGAAAATGTTTCTATGTGGATATTTGCACTTACTGCTGGCTTATTCA  
TGTATGTTGCTCTGGTTGATATGGTACCTGAAATGCTGCACAATGATGCTAGTGACCATGGATGTAGCCGCTGGG  
GGTATTTCTTTTTACAGAATGCTGGGATGCTTTTGGGTTTTGGAATTATGTTACTTATTTCCATATTTGAACATA  
AAATCGTGTTCGTATAAATTTCTAGTTAAGGTTTAAATGCTAGAGTAGCTTAAAAAGTTGTCATAGTTTCAGTA  
GGTCATAGGGAGATGAGTTTGTATGCTGTACTATGCAGCGTTTAAAGTTAGTGGGTTTTGTGATTTTTGTATTGA  
ATATTGCTGTCTGTTACAAAGTCAGTTAAAGGTACGTTTTAATATTTAAGTTATTCTATCTTGGAGATAAAATCT  
GTATGTGCAATTCACCGGTATTACCAGTTTATTATGTAAACAAGAGATTGGCATGACATGTTCTGTATGTTTCA  
GGGAAAAATGCTTTTAAATGCTTTTTCAAGAACTAACACAGTTATTCCTATACTGGATTTTAGGTCTCTGAAGAAC  
TGCTGGTGTTTAGGAATAAGAATGTGCATGAAGCCTAAAAATACCAAGAAAGCTTATACTGAATTTAAGCAAAGAA  
ATAAAGGAGAAAAGAGAAGAATCTGAGAATTGGGGAGGCATAGATTCTTATAAAAATCACAAAATTTGTTGTAAA  
TTAGAGGGGAGAAATTTAGAATTAAGTATAAAAAGGCAGAATTAGTATAGAGTACATTCATTAAACATTTTTGTC  
AGGATTATTTCCCGTAAAAACGTAGTGAGCACTTTTCATATACTAATTTAGTTGTACATTTAACTTTGTATAATA  
CAGAAATCTAAATATATTTAATGAATTCAGCAATATATCACTTGACCAAGAAATTGGAATTTCAAATGTTTCGT  
GCGGGTATATACCAGATGAGTACAGTGAGTAGTTTTATGTATCACCAGACTGGGTTATTGCCAAGTTATATATCA  
CCAAAAGCTGTATGACTGGATGTTCTGGTTACCTGGTTTACAAAATATCAGAGTAGTAAACTTTGATATATAT  
GAGGATATTTAAACTACACTAAGTATCATTTGATTGCGATTGAGAAAAGTACTTTGATATCTCTCAGTGCTTCAGTG  
CTATCATTGTGAGCAATTGCTTTTTATATACGGTACTGTAGCCATACTAGGCCTGTCTGTGGCATTCTCTAGATG  
TTCTTTTTTACACAATAAATTCCTTATATCAGCTTGAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 220**

CTCGTGCCGAATTCGGCACGAGACCGCGTGTTCGCGCCTGGTAGAGATTTCTCGAAGACACCACTGGGCCCCGTGT  
GGAACCAAACCTGCGCGCGTGGCCGGGCGGTGGGACAACGAGGCCGCGGAGACGAAGGCGCAATGCGGAGGAAGT  
TATCTGTAATCTTGATCCTGACCTTTGCCCTCTCTGTACAAATCCCCTTCATGAACATAAAGCAGCTGCTTTCC  
CCCAGACCACTGAGAAAATTAGTCCGAATTGGGAATCTGGCATTAAATGTTGACTTGGCAATTTCCACACGGCAAT  
ATCATCTACAACAGCTTTTCTACCGCTATGGAGAAAATAATTCTTTGTCTAGTTGAAGGGTTCAGAAAATTACTTC  
AAAATATAGGCATAGATAAGATTAAAAAGAAATCCATATACACCATGACCACGACCATCACTCAGACCACGAGCATC  
ACTCAGACCATGAGCGTCACTCAGACCATGAGCATCACTCAGACCACGAGCATCACTCTGACCATAATCATGCTG  
CTTCTGGTAAAAATAAGCGAAAAGCTCTTTGCCAGACCATGACTCAGATAGTTCAAGTAAAGATCCTAGAAACA  
GCCAGGGGAAAGGAGCTCACCGACCAGAACATGCCAGTGGTAGAAGGAATGTCAAGGACAGTGTAGTGCTAGTG  
AAGTGACCTCAACTGTGTACAACACTGTCTCTGAAGGAACCTACTTTCTAGAGACAATAGAGACTCCAAGACCTG  
GAAACTCTTCCCCAAAGATGTAAGCAGCTCCACTCCACCCAGTGTACATCAAAGAGCCGGGTGAGCCGGCTGG  
CTGGTAGGAAAACAAATGAATCTGTGAGTGAGCCCCGAAAAGGCTTTATGTATTCCAGAAAACAAATGAAAATC  
CTCAGGAGTGTTCATGCATCAAAGCTACTGACATCTCATGGCATGGGCATCCAGGTTCCGCTGAATGCAACAG  
AGTTCAACTATCTCTGTCCAGCCATCATCAACCAAATTGATGCTAGATCTTGTCTGATTACATAAGTAAAAAGA  
AGGCTGAAATCCCTCCAAAGACCTATTCAATACAAATAGCCTGGGTTGGTGGTTTTATAGCCATTTCCATCATCA  
GTTTCCTGTCTCTGCTGGGGTTTATCTTAGTGCTCTCATGAATCGGGTGTTTTTCAAATTTCTCTGAGTTTCC  
TTGTGGCACTGGCCGTTGGGACTTTGAGTGGTGATGCTTTTTTACACCTTCTTCCACATTCTCATGCAAGTCACC  
ACCATAGTCATAGCCATGAAGAACCAGCAATGGAAATGAAAAGAGGACCACTTTTCAGTCATCTGTCTTCTCAAA  
ACATAGAAGAAAGTGCCTATTTTGAATCCACGTGGAAGGGTCTAACAGCTCTAGGAGGCCTGTATTTTCATGTTTC  
TTGTTGAACATGTCCTCACATTGATCAAACAATTTAAAGATAAGAAGAAAAAGAATCAGAAGAAACCTGAAAATG  
ATGATGATGTGGAGATTAAGAAGCAGTTGTCCAAGTATGAATCTCAACTTTCAACAAATGAGGAGAAAGTAGATA  
CAGATGATCGAACTGAAGGCTATTTACGAGCAGACTCACAAGAGCCCTCCCACTTTGATTCTCAGCAGCCTGCAG  
TCTTGAAGAAGAAGAGGTCATGATAGCTCATGCTCATCCACAGGAAGTCTACAATGAATATGTACCCAGAGGGT  
GCAAGAATAAATGCCATTACATTTCCACGATACACTCGGCCAGTCAGACGATCTCATTACCAACCATCATGACT  
ACCATCATATTCTCCATCATCACCACCACCAAAACCACCATCTCACAGTCACAGCCAGCGCTACTCTCGGGAGG  
AGCTGAAAGATGCCGGCGTCGCCACTTTGGCCTGGATGGTGATAATGGGTGATGGCCTGCACAATTTACGCGATG  
GCCTAGCAATTGGTGCTGCTTTTTACTGAAGGCTTATCAAGTGGTTTAAGTACTTCTGTTGCTGTGTTCTGTCTATG  
AGTTGCCTCATGAATTAGGTGACTTTGCTGTTCTACTAAAGGCTGGCATGACCGTTAAGCAGGCTGTCTTTTATA  
ATGCATTGTCAGCCATGCTGGCGTATCTTGAATGGCAACAGGAATTTTCATTGGTCATTATGCTGAAAATGTTT  
CTATGTGGATATTTGCACTTACTGCTGGCTTATTCATGTATGTTGCTCTGGTTGATATGGTACCTGAAATGCTGC  
ACAATGATGCTAGTGACCATGGATGTAGCCGCTGGGGTATTTCTTTTACAGAATGCTGGGATGCTTTTGGGTT  
TTGGAATTATGTTACTTATTTCCATATTTGAACATAAAATCGTGTTTCGTATAAATTTCTAGTTAAGGTTTAAAT  
GCTAGAGTAGCTTAAAAAGTTGTCATAGTTTCAGTAGGTCATAGGGAGATGAGTTTGTATGCTGTACTATGCAGC  
GTTTAAAGTTAGTGGGTTTTGTGATTTTTGTATTGAATATTGCTGTCTGTTACAAAGTCAGTTAAAGGTACGTTT  
TAATATTTAAGTTATTCTATCTTGGAGATAAAATCTGTATGTGCAATTCACCGGTATTACCAGTTTATTATGTAA  
ACAAGAGATTTGGCATGACATGTTCTGTATGTTTCAGGGAAAAATGTCTTTAATGCTTTTTCAAGAACTAACACA  
GTTATTCTATACTGGATTTTAGGTCTCTGAAGAACTGCTGGTG

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**FIGURE 221**

MARKLSVILILTFALSVTNPLHELKAAAFPQTTEKISPNWESGINVDLAISTRQYHLQQLFYRYGENNSLSVEGF  
RKLLQNIGIDKIKRIHIHHDHHDHSDHEHHSDDHERHSDHEHHSDDHNDHAASGKNKRKALCPDHDSDSSGK  
DPRNSQKGGAHRPEHASGRRNVKDSVSASEVTSTVYNTVSEGTHFLETIETPRPGKLFPKDVSSSTPPSVTSKSR  
VSRLAGRKTNESVSEPRKGFMYSRNTNENPQECFNASKLLTSHGMGIQVPLNATEFNLYLCPAIINQIDARSCLIH  
TSEKKAIEIPPKTYSLQIAWVGGFIAISIIISFLSLLGVILVPLMNRVFFKFLLSFLVALAVGTLSGDAFLHLLPHS  
HASHHSHSHEEPAMEMKRGPLFSLSSQNIEESAYFDSTWKGLTALGGLYFMFLVEHVLTLIKQFKDKKKKNQK  
KPENDDDDVEIKKQLSKYESQLSTNEEKVDTDRTGYLRADSQEP SHFDSQQPAVLEEEVEMIAHAHPQEVYNEY  
VPRGCKNKCHSHFHTLQSQDDLIIHHHDYHHILHHHHHQNHHPHSHSQRYREELKDAGVATLAWMVIMGDGLH  
NFS DGLAIGAAFTGLSSGLSTSVAVFCHLPHELGDFAVLLKAGMTVKQAVLYNALSAMLAYLG MATGIFIGHY  
AENVSMWIFALTAGLFMYVALVDMVPEMLHNDASDHGCSRWGYFFLQ NAGMLLGFGIMLLIPYLNKSCSYKFLV  
KV

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**FIGURE 222**

CCGCCAGATTTGAATCGCGGGACCCGTTGGCAGAGGTGGCGGGCGGCGGCATGGGTGCCCCGACGTTGCCCCCTGC  
CTGGCAGCCCTTTTCTCAAGGACCACCGCATCTCTACATTCAAGAACTGGCCCTTCTTGGAGGGCTGCGCCTGCAC  
CCCGGAGCGGATG<sup>5</sup>CCGAGGCTGGCTTCATCCACTGCCCCACTGAGAACGAGCCAGACTTGGCCCAGTGTTTCTT  
CTGCTTCAAGGAGCTGGAAGGCTGGGAGCCAGATGACGACCCCATAGAGGAACATAAAAAGCATTTCGTCCGGTTG  
CGCTTTCCTTTCTGTCAAGAAGCAGTTTGAAGAATTAACCCTTGGTGAATTTTTGAAACTGGACAGAGAAAGAGC  
CAAGAACAAAATTGCAAAGGAAACCAACAATAAGAAGAAAGAATTTGAGGAACTGCGAAGAAAGTGCGCCGTGC  
CATCGAGCAGCTGGCTGCCATGGATTGAGGCCCTCTGGCCGGAGCTGCCTGGTCCCAGAGTGGCTGCACCACTTCC  
AGGGTTTATTCCCTGGTGCCACCAGCCTTCCTGTGGGGCCCCCTTAGCAATGTCTTAGGAAAGGAGATCAACATTTT  
CAAATTAGATGTTTCAACTGTGCTCCTGTTTTGTCTTGAAAGTGGCACCAGAGGTGCTTCTGCCTGTGCAGCGGG  
TGCTGCTGGTAACAGTGGCTGCTTCTCTCTCTCTCTCTTTTTTTGGGGGCTCATTTTTGCTGTTTTGATTCCCG  
GGCTTACCAGGTGAGAAGTGAGGGAGGAAGAAGGCAGTGTCCCTTTTGCTAGAGCTGACAGCTTTGTTTCGCGTGG  
GCAGAGCCTTCCACAGTGAATGTGTCTGGACCTCATGTTGTTGAGGCTGTCACAGTCCTGAGTGTGGACTTGGCA  
GGTGCCTGTTGAATCTGAGCTGCAGGTTCCCTTATCTGTACACCTGTGCCTCCTCAGAGGACAGTTTTTTTGTG  
TTGTGTTTTTTTTGTTTTTTTTTTTTTTGGTAGATGCATGACTTGTGTGTGATGAGAGAATGGAGACAGAGTCCCTGG  
CTCCTCTACTGTTTAAACAACATGGCTTTCTTATTTTGTGTTGAATTGTTAATTCACAGAATAGCACAACTACAAT  
TAAACTAAGCACAAAGCCATTCTAAGTCATTGGGGAAAACGGGGTGAACCTCAGGTGGATGAGGAGACAGAATAG  
AGTGATAGGAAGCGTCTGGCAGATACTCCTTTTGCCACTGCTGTGTGATTAGACAGGCCAGTGAGCCGCGGGGC  
ACATGCTGGCCGCTCCTCCCTCAGAAAAAGGCAGTGGCCTAAATCCTTTTTAAATGACTTGGCTCGATGCTGTGG  
GGGACTGGCTGGGCTGCTGCAGGCCGTGTGTCTGTACGCCAACCTTCACATCTGTACGTTCTCCACACGGGGG  
AGAGACGCAGTCCGCCCAGGTCCCCGCTTTCTTTGGAGGCAGCAGCTCCCGCAGGGCTGAAGTCTGGCGTAAGAT  
GATGGATTTGATTGCGCCCTCCTCCCTGTGCATAGAGCTGCAGGGTGGATTGTTACAGCTTCGCTGGAAACCTCTGG  
AGGTCATCTCGGCTGTTCTGAGAAATAAAAAGCCTGTCAATTC

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**FIGURE 223**

MGAPTLPPAWQPFLKDHRI STFKNWPFLEGC ACTPERMAEAGFIHCPTENEPDLAQCF FCFKELEGWEPDDDPIE  
EHKKHSSGCAFLSVKKQFEELTLGEFLKLDRE RAKNKIAKETNNKKKEFEETAKKVRRRAIEQLAAMD

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**FIGURE 224A**

CGCAGAACCGAGGTCGCCGAGTGATGATGTTGTGAAGTCGCCCGCCTGTCCCTGCCACGCCCGGGCGGTTGCTGG  
CAGTGGGAGCAGCGGCAGCAGCTTCGGCTGCTGCTTTTCAGGCTGCCGCTGCATTAGGGGCTTCCTGAGGAAACGC  
GGGCGGACGACAGAGGATGCCGAACCACTCCAGTCATGACTGTCCAAAGTATGATAATCACATGAGAGTGCTCGT  
TGCTACGGATGTCATTTGACTCATCAGAGAAAATCTGTCTAAAAGAAAATATCCATGTGACCAAATCCATTTTCAT  
TATTGAATGGCTTGATGGATTTCCCTTTACTCTGATTCATACCAAAGCTGTCTTCTCAACCAAAGCAAGAAAAGGA  
TCCTGCATGAGTCAATCCCAGAATGCAATTTTTACATCACCAACAGGTGAAGAAAACCTCATGAATAGCAATCAC  
AGAGACTCGGAGAGCATCACTGATGTCTGCTCCAATGAGGATCTCCCTGAAGTTGAGCTGGTGAGTCTGCTAGAA  
GAACAACACCACAGTATAGGCTAAAAGTAGACACTCTCTTTCTATATGAAAATCAAGACTGGACTCAGTCTCCA  
CACCAGCGGCAGCATGCATCTGATGCTCTCTCTCCAGTCCCTTGCTGAAGAGACTTTCCGTTACATGATTCTAGGC  
ACAGACAGGGTGGAGCAGATGACCAAACTTACAATGACATCGACATGGTTACACATCTCCTGGCAGAGAGGGAT  
CGTGATCTGGAACCTCGCTGCTCGAATTGGACAAGCTCTCTTAAAGCGGAACCATATCTTATCTGAGCAGAACGAA  
TCCCTGGAGGAGCAATTGGGACAAGCCTTTGATCAAGTTAATCAGCTGCAGCATGAGCTATGCAAGAAAGATGAG  
TTACTTGAATCGTCTCCATTGCTTCTGAAGAAAGTGAACTGATTCCAGCTGTTCTACACCTCTTCGGTTCAAT  
GAGTCCCTTTAGCTTATCTCAAGGGTTGCTGCAGTTGGAAATGCTGCAAGAAAAGCTCAAGGAAGTGAAGAAGAG  
AATATGGCTCTTCGATCCAAGGCTTGTCACATAAAGACAGAACTGTTACCTATGAAGAAAAGGAACAACAGCTT  
GTCAGCGACTGTGTTAAAGAACTTCGTGAAACAAATGCTCAGATGTCCAGAATGACTGAAGAATTGTCAGGGAAG  
AGTGATGAGCTGATTGATACCAAGAAGAGCTTTCTCTCTTTTGTACAGATTGTAGACCTTCAGCATAAACTT  
AAAGAACATGTGATTGAGAAGGAAGAACTAAAACCTTCACTGCAAGCTTCCAAAGATGCCCAACGGCAACTGACA  
ATGGAGCTGCACGAGTTACAAGACAGGAATATGGAGTGTCTAGGAATGTTACATGAATCCCAAGAAGAAATAAAG  
GAACTTCGTAGTAGATCTGGCCCTACTGCTCATCTCTACTTCTCCCAATCATATGGAGCTTTTACTGGGGAATCT  
TTGGCAGCTGAGATTGAGGGGACTATGCGTAAAAAGCTGAGTTTGGATGAGGAATCTTCTCTCTTTAAACAAAAA  
GCCCCACAGAAGCGGGTATTTGATACCGTCAGGATTGCCAATGACACACGGGGCCGCTCTATCTCATTCCAGCT  
CTGTTACCCATTCCAGGCTCCAACCGTTCAAGTGTCTCATCATGACAGCAAAACCTTTTGAGTCTGGTCTTCAGCAA  
ACAGAGGACAAATCACTCCTGAACCAGGGGAGCAGCTCAGAGGAGGTTGCAGGGAGCTCCCAGAAGATGGGCCAA  
CCAGGACCCTCAGGAGATAGTGATTGGCTACAGCACTGCATCGCCTTAGCTTGCGTCGACAAAACCTATTTAAGT  
GAGAAGCAGTTCTTTGCTGAAGAATGGCAGCGGAAGATCCAGGTTCTGGCAGACCAGAAGGAAGGAGTTAGTGGC  
TGTGTCACCCCGACAGAGAGCCTTGCTCTCTCTGCAACCCAGTCAGAGATCACAGACCTCAGCAGTGCCAGT  
TGCTTCGAGGTTTTATGCCAGAAAAATTACAAATTGTCAAGCCCCCTGAAGGATCACAACTCTGTATCACTGG  
CAGCAGCTTGCTCAACCAAACCTTGGGAACCATCTTGATCCACGACCAGGTGTCATTACTAAAGGCTTTACCCAG  
TTGCCCCGGGGATGCTATTTATCACATCTCAGATTTAGAAGAGGATGAAGAGGAGGGTATTACTTTTCAGGTTTCAG  
CAACCTCTTGAAGTGGAAGAGAACTTTCAACATCCAAGCCAGTAACAGGGATCTTCTGCCACCCATTACTTCA  
GCAGGTGGACAGTTACAGTTGCAACCGCCAACCCAGGAAAGTGCCTGTCTGTCACAAAACCTCAACATTCACTTTC  
ACCACCTGTAGAATATTACATCCCTCTGACATCACTCAGGTTACCCCCAGCTCTGGGTTCCCTTCATTATCCTGT  
GGAAGTAGCGGTAGCAGTTCATCCAACACGGCTGTGAATTCTCCTGCCTTGCTCTATAGACTCAGCATTGGTGAG  
TCCATCACCAACCGACGAGATTCCACTACAACCTTCAGTAGCACCATGAGCTTGGCCAACTTCTACAAGAGCGA  
GGCATCTCTGCCAAAGTGTAACACAGCCCAATTTTCAGAGAACCCCTCCAGCCTCTCCCTAAATCCCTGGCTATC  
CCTTCCACACCACCAATTCACCATCTCACTCACCTTGCCCTTCTCCTTTACCCCTTTGAGCCTCGAGTGCATCTC  
TCTGAAAATTTTTTGGCCTCTCGACCAGCTGAGACATTCTCCAGGAGATGTATGGCTTGAGACCTCCCGGAAC  
CCTCCTGATGTTGGCCAGTTGAAGATGAACTTAGTGGACAGGCTGAAGAGACTGGGGATAGCCAGAGTGGTCAAG  
AACCCTGGTGCCCAAGAGAAATGGAAGATGCCAGGAGGCAGAAATTGGTCCTCAAAAACAGATTCTGCTGTTTAT  
TTAAATTAGGTAGCAGTTTATTAGGTGGACTAAGGAGGAATCAGAGTCTTCCAGTCATAATGGGTAGCTTTGCT  
GCCCCAGTTTGCACATCCTCACCCAAAATGGGTGTCCTGAAGGAGGACTGAGGTTTCAGCAGTTAACTGACCTTTT  
ATACAAGTTAGCACATGAAGGATAGATATGCACTGAAACATGTGGTCTGGTCTGACTTGAGAGAAAAGGAATGTT  
GCACAAGGGTTGTGAATGTGAAAGGGGGAATGGAGGAATGGAATAAAATTGGGATGAGCCCTAATGGAGGAAGT  
CGGSCAAATTGAAAGTATAAATGAATGGGCCATGAGTGTTTCAGAGGGAGAAAAGAAAGGTTTAAATATACTCCTTC  
AGTTGAGTTTTCTTGCTTGAACATAAAAAGTGAATACAAATAAATTCAGTAATACTAAAACATACAGAGATACT  
CAACTTGCTGGCACATTTACTTCTGGTAAGCATAAAGCAGAGAGAACCAGGTTAGAAGGATGGGAAGAGAAAAG  
GAGCAGTTTTATTGCTTATAGAAAGCCGTTCTGAGGGGTTGGTGGGGTAAGCTCAGTCTATTACTGAGACAATAG

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**FIGURE 224B**

TGAGATGGCTTATATGTTTCCCCTGTTAATATCTGGTTAAATTATGTATCCATCAAATGGTATGCTCGCAGCATT  
AGCAAAATTAGGAGTTTCATCTTTTTTCATTGAATCACAGGTGGAGACTCCTATTTTCCCTTCTGTTTTTCAGGCCT  
TTGAGCCCCTGGGAGCCCAATACCACTCAATTATTTTGTATTTATGATTAATAAAAGTTCATTTTTTTAAATTTG  
TATTTTTATACAACCTCCAAAAAACAACCTGGGTAGAGGGTGGGAGGGATTTACTTTTTAAGAGGCAAAATG  
TGAGTAAATTGAAACCAAGAAAACCTGTTTTTAGAATATTTTCGTCTGAATAAGTACAGTAGCCAAGGAATACAAA  
CCTAATTGCATGTTTTTAAAAATTCCTTGGAGGCTGGAAGGGTTAAGCCAGAAGTGCAATCAATAGGAATTAGG  
GAATGTTGTATATTTATATATGTAACTTTTTTTGTAAGAAAAGTTGGTGACAATAAACCAACTTTTTCCAAAG  
TGCGCTATGCATATTTTTAATGAAAGATGACATGTATTTGCACAAAAATTCTCAGGCACATTAAATTATTGTA  
CTGAAGTAAAACCCGGGTGCTTGCTTTGAGATTGTGGTTTTTTCTTCTAATGTAAAATAAAATAAACACATCT  
GCCTTCTTGATATTTATAGAATTAGAGAATAAACTTTTTAATGGGGGAGTCAAAGCTTTTTCTTTTCTCTAAGG  
TTCTTTTTTTTTATTCAAACCTGTATGAAATGGCAAAGTGAGGCTCTGGGGTTAGATTTTACAGCATTCAGCAGTTGAC  
ACAGGCTAAGAAATGGAAAGAAGTAGATCTGTTTTTTCTCAATGTTGCTGAGCAAAGTCTGCTTCTCATCAGATG  
ACGTGGCTTTGTCTAGACAGCAGCAGTTCAGAAAAGAAATGTCTTTATACAAAAGACATGATAGAGAAAAGATGA  
GAGAGGGGACTAATTATTTGTTTATGAAAATGGCAAAGTAAATTACTTGATCTTTTTGGTGCTTAATTTGCAAAAT  
GTTTTGTTCTTTGTCTGACTTAAAGGCAGTTTTCTGAAGAACTCTTGACTCTTGCTCCTATGGTTCCCATAGG  
CACACCTATTCCCAGGCCAAGGAGAGTCCCTTCTCTCCCTTTTGAGGCATCCCCGCCATCCCCCACTTAGAGC  
TATGTGCTCAAAAAGCCAACATGAATGCAGTGGTAAAAATTTGTTAGTTTCTTATACTTTTTAGAAATCTCTCAAT  
AAAATTTTTCTAAATAAATTCCACAAAAACAAGGGTGAAGATGGTCTCTCCCTTTTCGTTCCCTTCACTCAGTT  
GTGCTGAGGTCAATAGAGTGTAGAGTTTTCAGAAAGGATTCCAGCAGGTTTATATGTGAATATAAGTGTCCCTGAA  
TGGGGCAGGCATTAAATAGAAGAATCCCTGCTGTTTAAATTTCCCGCATATTTCAATTCACTTTTAAAAAATACC  
ATTTGAATTTGTATTTTATAAAGTGACTCTGGGGTGCTTACTTTAGTCAATTTCTTAAATTTTTTATTTGTTCCC  
TAAGAAAGTAATTACTGTTTCTGTTGCCTGGACAGTTACAGTTTCCAGGAAACATCAGGAAGTAGGAACTGTAG  
GGCCAGAGAGTAGTACAACGTTAAATTGTCCGATTTATGTGTATTACTTAAAGCTATAAATTGAACTAGATCTTG  
CCGTGCTCTGTATTGAGTATAATTTGTATACTTTTTTATAATTAATGACTAAATGATCACTTTGGAGGCAGGGTG  
GTGGGGGTGTATTAGCAGCCAAATAAGCATATCTGATCAAAAAGAACCAGGCTTAGATTTTTTTTTTAAGTACATTG  
ATGTTGATGTTCCACCAGAAACACCTTAAGTGTATACTGTTGTGTAATGTCTCTAGAAAGGAATCCTGTCTTAAA  
ACTGGGTTTTTGCTGTTTTTTGAAGTTTCTACCTAAAATCATTTTTTGGTATATCCTGATAATCTCTATAATACTAG  
AATTGTCTGCAAAATATAGTAAGAAGAATTGGAGCCTAATAGCTGATTCCTCCCAATTTATCTGTTATGTTTTGT  
CACTATTCACATTTTAGTCTTTTCTACGATAAAAATTGTATGTGTACTTTTCATGCCAGTATAGGAAACCTCAATC  
TTTTTTTTTTTTTCGCCTTTAAGAAGTTTTTCAGTGATTATACCTCAGGTATTTCTGAGTGTCTTATTGTCTAATA  
GGAGAAATATCTTCCCGAGCTCAGAATTAAAAGTTCTCCTAAATTTATGAAGATCCCAAATCTTATGTAAATAACC  
TTAGGCATGAGTCCTTAGGGAGAAGTTAATGACCATTGTTAAAAGTGCTTTTTTAGAAAATGTTGTGCTGTATGTT  
CTTGATTTGACATAAATGAATAGACTTTGGCAAGGGAGGAAATAAGTTAAAAGGCAGCTTACAAGAGCCTATTCC  
CTATAAAGGGTATAATTTTACACAGTACTCAAAGCTTGTTATCTTTTCTGACCATTTTAGTACAGAATTAGTACT  
TGGTGGTTACTAACATCAACTTGTGACATCTAGAACTAGGGCTCTTAGTGTTTAGTGGGCCACTTCTCTGATGTC  
AGATGCATGCAGACCTGTACTCCACATGCAACCCAACAGCAGTGCAGTGTGATAACTGAGCGGTGCGATGGCAGA  
GGACATCCCCCTCAGAGTGGGCACAAGTGCCCTCTAGGGCAGCCAGGGGAATACTATTGTTTCGATACCTGGGATT  
TGACTTTGTCAAACAGCTCTTTGTGCCCTATCTTTGTTTTGTCAAATGTAGATCAGTTAATAAACATGAGTAGC  
TTGAATTTTCAAAAAA



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**FIGURE 225**

MSQSQNAIFTSPGTGEENLMNSNHRDSESI TDVCSNEDLPEVELVSLLEEQLPQYRLKVDTLFLYENQDWTQSPHQ  
RQHASDALSPVLAEEETFRYMILGTD RVEQMTKYNDIDMVTHLLAERDRDLELAARIGQALLKRNHILSEQNESL  
EEQLGQAFDQVNQLQHELCKKDELLRIVSIASEESETDSSCSTPLRFNESFSLSQGLLQLEMLQEKLKELEENM  
ALRSKACHIKTETVTYEEKEQQLVSDCVKELRETNAQMSRMTEELSGKSDELIRYQEELSSLLSQIVDLQHLKE  
HVIEKEELKLHLQASKDAQRQLTMELHELQDRNMECLGMLHESQEEIKELRSRSGPTAHLYFSQSYGAFTGESLA  
AEIEGTMRKKLSLDEESSLFKQKAQQKR VFDTVRIANDTRGRSISFPALLP IPGSNRSSVIMTAKPFESGLQOTE  
DKSLLNQSSSSEEVAGSSQKMGQPGPSGDS DLATALHRLSLRRQNYLSEKQFFAEWQRKIQVLADQKEGVSGCV  
TPTESLASLCTTQSEITDLSSASCLRGFMPEKLQIVKPLEGSQTLYHWQQLAQPNLGTILDPRPGVITKGFTQLP  
GDAIYHISDLEEDDEEGITFQVQQPLEVEEKLSTSKPVTGIFLPPITSAGGPVTVATANPGKCLSCTNSTFTFTT  
CRILHPSDITQVTPSSGFPSLSCGSSGSSSSNTAVNSPALS YRLSIGESITNRRDSTTTFSSTMSLAKLLQERGI  
SAKVYHSPISENPLQPLPKSLAIPSTPPNSPSHSPCPSPLPFEP RVHLSNFLASRPAETFLQEMYGLRPSRNPP  
DVGQLKMNLVDRLKRLGIARVVKNPGAQENGRCQEA EIGPQKPD SAVYLNSGSSLLGGLRRNQSLPVIMGSFAAP  
VCTSSPKMGVLKED

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**FIGURE 226**

GGCACGAGGGCTTCTCCTGCGCCTCCTTTTCGCCCAGCACTAGCGCCTTAGGCCAGCTCGGGGGATGTGAGAGCC  
GAAGCCCTTAGACTGCCAGGCACAGAGTCGGGTCGGGATTTGTCAGCCAAGCCTCGGCTCCAGCTCCGCAATCTC  
GGGACTCACCCGAGCGACCCAGGCCCCGACGGCAAGTTCGGGGCGGGACGGCGGGCCGCGCGCTCAGGCTCAGCT  
TCGCTGCCCCGCCCAGAAGATGAATCCGGCCTCGGGCGCCCCCTCCGCTCCCGCCGCTGGGCAGCAAGTGATCCAC  
GTCACGCAGGACCTAGACACAGACCTCGAAGCCCTCTTCAACTCTGTGTCATGAATCCGAAGCCTAGCTCGTGGCGG  
AAGAAGATCCTGCCGGAGTCTTTCTTTAAGGAGCCTGATTGCGGGCTCGCACTCGCGCCAGTCCAGCACCGACTCG  
TCGGGGCGGCCACCCGGGGCCTCGACTGGCTGGGGGTGCCAGCATGTCCGCTCGCACTCGTCGCCCCGCTCCCTG  
CAGCTGGGCACCGGCGCGGGTGTGCGGGTAGCCCCGCGCAGCAGCACGCGCACCTCCGCCAGCAGTCTTACGAC  
GTGACCGACGAGCTGCCACTGCCCCCGGGCTGGGAGATGACCTTCACGGCCACTGGCCAGAGGTACTTCCTCAAT  
CACATAGAAAAAATCACCACATGGCAAGACCCTAGGAAGGCGATGAATCAGCCTCTGAATCATATGAACCTCCAC  
CCTGCCGTGAGTTCCACACCAGTGCCTCAGAGGTCCATGGCAGTATCCCAGCCAAATCTCGTGATGAATCACCAA  
CACCAGCAGCAGATGGCCCCCAGTACCCTGAGCCAGCAGAACCACCCCACTCAGAACCACCCCGCAGGGCTCATG  
AGTATGCCCCAATGCGCTGACCACTCAGCAGCAGCAGCAGCAGAACTGCGGCTTCAGAGAATCCAGATGGAGAGA  
GAAAGGATTGGAATGCGCCAAGAGGAGCTCATGAGGCAGGAAGCTGCCCTCTGTGACAGCTCCCCATGGAAGCT  
GAGACTCTTGCCCCAGTTTCAAGGCTGCTGTCAACCCACCCACGATGACCCAGACATGAGATCCATCACTAATAAT  
AGCTCAGATCCTTTCTCAATGGAGGGCCATATCATTGAGGGAGCAGAGCACTGACAGTGGCCTGGGGTTAGGG  
TGCTACAGTGTCCCCACAACCTCCGGAGGACTTCCTCAGCAATGTGGAIGAGATGGATACAGGAGAAAACGCAGGA  
CAAACACCCATGAACATCAATCCCCAACAGACCCGTTTCCCTGATTTCTTGACTGTCTTCCAGGAACAAACGTT  
GACTTAGGAACCTTTGGAATCTGAAGACCTGATCCCCCTCTTCAATGATGTAGAGTCTGCTCTGAACAAAAGTGAG  
CCCTTTCTAACCTGGCTGTAATCACTACCATTGTAACCTGGATGTAGCCATGACCTTACATTTCTTGGGCCTCTT  
GGAAAAAGTGATGGAGCAGAGCAAGTCTGCAGGTGCACCCTTCCCGCCTCCATGACTCGTGCTCCCTCCTTTTT  
ATGTTGCCAGTTTAATCATTGCCTGGTTTTGATTGAGAGTAACCTAAGTTAAACATAAATAAATATTCTATTTTC  
ATTTTCTGCAAGCCTGCGTTCTTGTGACAGATTATACAGAATTGTGTCTGCAGGATTGATTATGCAGAATACTTT  
TCTCTTTCTTCTCTGCTGCCCCATGGCTAAGCTTTATGGGTGTTAATTGAAATTTATACACCAATTGATTTTAA  
CCATAAAAAAGCTGACCACAGGCAGTTACTTCTGAGGGCATCTTGGTCCAGGAAATGTGCACAAAATTCGACCTGA  
TTTACAGTTTCAAAAACCTGTATTGATGACAGTAGTACCAAATGCTTTAAAAACTATTTAACTTGAGCTTTAAAA  
TCATTGTATGGATAGTAAAAATTCTACTGTATGGAATACAATGTAATTTTGAATCCAAAAAAAAAAAAAAAAAAAA

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**FIGURE 227**

MNPASAPPPLPPPGQQVIHVTQDLDTDLLEALFNSVMNPKPSSWRKKILPESFFKEPDSGSHSRQSSTDSSGGHPG  
PRLAGGAQHVRSHSSPASLQLGTGAGAAGSPAQQHAHLRQQSYDVTDELPLPPGWEMTFTATGQRYFLNHIEKIT  
TWQDPRKAMNQPLNHNMLHPAVSSTPVPQRSMASQPNLVMNHQHQQQMAPSTLSQQNHPTQNPPAGLMSMPNAL  
TTQQQQQQKLRLQRIQMERERIRMRQEELMRQEAALCRQLPMEAETLAPVQAAVNPPPTMTPDMSITNNSDPFL  
NGGPYHSREQSTDGSLGLGCYSVPTTPEDFLSNVDEMDTGENAGQTPMNINPQQTRFPDFLDCLPGTNVDLGTL  
SEDLIPLFNDVESALNKSEPFLLTWL

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**FIGURE 228**

GGCACGAGGGGCTAAGGGTGCGCGAGTAGCCGCCACCCGTTTCGGCGTTGGCTCTGGCGTCGGGGTCGTTGTGTCTG  
TGACAACCGCTGCGGTAGCCGTTTCCGAGGCAGCAGTTGCGGCCGCTTTAGCCCTGAGCGGGATCTGCGGCTGCC  
TGCGAGTCTCTGCTGTGCCGACCCTTCTCTTCGCGGACCCACGCCAAGCAGCGACCCCTGAGCCGACAGCCGGAG  
CGCCCCGCAATGGCGGCCTCGACGGCCTCGCACCGGCCCATCAAGGGGATCTTGAAGAACAAGACCTCTACGACT  
TCCTCTATGGTGGCGTCGGCCGAACAGCCCCGCGGGAATGTGACGAGGAGCTGAGCAAAAAATCCCAGAAGTGG  
GATGAAATGAACATCTTGGCGACGTATCATCCAGCAGACAAAGACTATGGTTTAAATGAAAATAGATGAACCAAGC  
ACTCCTTACCATAGTATGATGGGGGATGATGAAGATGCCTGTAGTGACACCGAGGCCACTGAAGCCATGGCGCCA  
GACATCTTAGCCAGGAAATTAGCTGCAGCTGAAGGCTTGGAGCCAAAGTATCGGATTCAGGAACAAGAAAGCAGT  
GGAGAGGAGGATAGTGACCTCTCACCTGAAGAACGAGAAAAAAGCGACAATTTGAAATGAAAAGGAAGCTTCAC  
TACAATGAAGGACTCAATATCAAACTAGCCAGACAATTAATTTCAAAGACCTACATGATGATGATGAAGATGAA  
GAAATGTTAGAGACTGCAGATGGAGAAAGCATGAATACGGAAGAATCAAATCAAGGATCTACTCCAAGTGACCAA  
CAGCAAAACAATTACGAAGTTCAATAGACGAGATTTGTTCAACACTGCAATTGTTTGTAGATGTAAACCCTGTG  
ACTATAGTACGTTGCTTCTTGTCTTCACAATTCATGACTTAAGTACCAAAATGCATACCAGTTATTATATATTG  
CCAAGAATTAAATGATAAACTTAGAGACTGATTAGACTGAAAATGCCTAATCGATATATATATTCTTGTGCCTAG  
TACTTTACCACAAATAAGTGTAAATATCATCAGTCCAAACTGCATTACTTTTGTAAAAACACTGGTTAATTTGT  
ATAAGATATTATAGAGCTTTTTATGCTTTAGAAGTTAAACAATATCTTTGGGGGGGAATAATTTATTTTCATCA  
CTTGAAATGTGGTAGCTCTTACAAAGTTTATTGATTTGATTTTTTTTAAAAATCAAAGCCAATTGAACAACAGGA  
TATATAGACTGATAAATATTTAGGCTGAATAGTATTTTAACTTGTCTTCAACTTGATTGTCTGTTTAATTGA  
AAAGAATTATAAGAGTTACTGTTGCATTTTCTGACCTACTATTTTTTAAATTCCTGTTGAGTTTCTTTGTGTTTA  
CAAGGAAAGGACTGAACTTTTTCTCATCAAACTAGCTTTTTTCCCAACAATAAATTATCAGGTTAACTTTTCA  
CCAATGCTGCTCTGTTTTTGTGTTTTGGGGGGTTTTTGTGTTTTTGTGTTTTTAAATGTTTTTGGTACACTGGG  
CAGACTTCAGAGCAGTTTTTTTAAAAAATAAATATTCTAATGTAGCTATCTCGCCATTCCCTTTAAATACCTGTC  
TTAACCTCCTGCTTTTTCTTCTACTCCTTTCCACACATACGCACACAATCTTCTACCTTTTAAAGGATCATTA  
GACTGTCACCACATTAGGAGCTCTTCTCTCACTCTTCTGTCATTTGCTGCTATGTTGAAATCTTATTTTGACC  
ATCAATGCCTATGAATCTTCTAATACGTGAAGAAAAATAGTTGAGTAGCAGCAGTGCTATAGGTGGGAAATACA  
GTTTAGCTGCTGAATTTCTATACCTCTCTGATTACAGATTGCTAATTAAATGGCTATTATTAGTTTGGATTAAT  
TAGACTTAAGAAAACAATACTGAGGGTTTTTTTTGTTTGTGTTTTGAGGGTTTTCTTTGCATGAGAGTTGTAT  
GTAACCAGTGATATGATTATTCCTGAATGTACAGACAGAAGTAAGCCTGGACATTGTTAAATAGTCCCTGCTTA  
AGGGACTACGATAATGTGTACTATGACAAACGTGCTTTATCTTCTAACGCAGTAAGAATTAGGTGGAATTTTT  
CCTTCAACCAAGTGACAGGAAAGCCCTGTGTGCTTGGTTTAGTTATGGTTTCATTTCTAGCCATACAATTGATGA  
ATTGTGTACAACTTTTGTTAGTACCAAAATAATCTGTTATATGAACAGACTTCTAAAATAACGTCTGTATATTT  
ATATATAGATACATATATGAAAGAAGGCTTTTATTGAACAGCTTATCTTCCACTTGCAGGTTTATGGAAACAGCA  
GTATTTGAAAATAAATAAAAAGTGGGAGAATTCCTTGCTGTTAGAAGAATGTGGCCATTATTTTGATTTTTGAA  
TGAGATATATAATCAAAGTACTGCTGAACGTGTGAGTGAGTATTCTAAACATTTAGCTAGGAATACCACTGATT  
TAGAAACAAACTGTTTGTCTCTGTTTTCTGAATTTAAATGTTGGGATTACCTGTTTAAATCTGTCTTGGGGGA  
TGTAAGATTAAAGTCTGTACATGTGCGTGACATATATTCATGCACCCCTCTGATTTTGGTTTTCTTGTCTGAG  
TTCTTAGAAAGTACCCACATACTCTTTTTTTTTTTTTTGTAGAAGTAGCTGTCATAGAGTGAAGAAAAGGATAAG  
ACTTTAAACAGTTGATTCTTTTTGTGTTTTCTACAACTATTTTTTGAAATTTAAATCACAACTCATTTTTCTGG  
TTTTTAGAAAGTAGATGATGATTTTCAAGGAGTAAGGCATGCCAAGCAGCATGCTCAGTGGGGTTTTAGGCTGTC  
ACATGCAGCTGAGAAAAGGTATGTTCAAGTCATAAGTAGGTAATTGATAGGGTATGAACTAGTCAAAATATGAAC  
CATTATGATTCAAGTTAGATTTTCTCTGGAGAGACAGATCTGAATGTTCAAGTTCTAGCCAAGGTAGATTTTACT  
TTCAACTTTTTAATCAGTATCACTTTCTGTGCTTAACTATTTGGTGTTACCTTGTCTGTTTTCATTTGTCTAAAA  
TTCTGCAGAGATGACTAAAATTTGACATAATGGTGAAATGGATTGTTAAGGTAACTTTCAGTTGAAGATTAAAG  
CAAGATGCCATTTTCCCATGACTTTGGTTTTGTTTACATTTTTTCCCTTTTCAAGTTAGTATACACTACACGTACTG  
TAATAAAATACAATAATATGAAAAAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 229**

MAASTASHRPIKGILKNKTSTTSSMVASAEQPRGNVDEELSKKSQKWDEMNILATYHPADKDYGLMKIDEPSTPY  
HSMMGDDEDACSDTEATEAMAPDILARKLAAAEGLEPKYRIQEQESSGEEDSDLSPEEREKKRQFEMKRKLHYNE  
GLNIKLARQLISKDLHDDDEDEEMLETADGESMNTESNQGSTPSDQQQNKLRSS

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**FIGURE 230**

AGGGGGCGCGGTGGGAGGAGTAGGAGAAGACAAAAGCCGAAAGCGAAGAGGGCCCGGGCTGCACACACCGGCTGG  
GAGGCAGCCGTCTGTGCAGCGAGCAGCCGGCGCGGGGAGGCCGAGTGCACGGGGCGTCACAGTCGGCAGGCAGC  
ATGGGGAAGGGAGGGAACCAGGGCGAGGGGGCCGCCGAGCGCGAGGTGTCGGTGCCACCTTCAGCTGGGAGGAG  
ATTCAGAAGCATAACCTGCGCACCGACAGGTGGCTGGTCATTGACCGCAAGGTTTACAACATCACCAAATGGTCC  
ATCCAGCACCCGGGGGGCCAGCGGGTCATCGGGCACTACGCTGGAGAAGATGCAACGGATGCCTTCCGCGCCTTC  
CACCTGACCTGGAATTCGTGGGCAAGTTCTTGAAACCCCTGCTGATTGGTGAACCTGGCCCCGAGGAGCCAGC  
CAGGACCACGGCAAGAACTCAAAGATCACTGAGGACTTCCGGGCCCTGAGGAAGACGGCTGAGGACATGAACCTG  
TTCAAGACCAACCACGTGTTCTTCTCCTCCTCCTGGGCCACATCATCGCCCTGGAGAGCATTGCATGGTTCACT  
GTCTTTTACTTTGGCAATGGCTGGATTCTACCTCATCACGGCCTTTGTCTTGCTACCTCTCAGGCCCAAGCT  
GGATGGCTGCAACATGATTATGGCCACCTGTCTGTCTACAGAAAACCCAAGTGAACACCTTGTCCACAAATTC  
GTCATTGGCCACTTAAAGGGTGCCTCTGCCAACTGGTGAATCATCGCCACTTCCAGCACCCAGCCAAGCCTAAC  
ATCTTCCACAAGGATCCCGATGTGAACATGCTGCACGTGTTTGTCTGGGCGAATGGCAGCCCATCGAGTACGGC  
AAGAAGAAGCTGAAATACCTGCCCTACAATCACCAGCACGAATACTTCTTCTGATTGGGCCCGCGCTGCTCATC  
CCCATGTATTTCCAGTACCAGATCATCATGACCATGATCGTCATAAGAAGTGGGTGGACCTGGCCCTGGGCCGTC  
AGCTACTACATCCGGTTCTTCATCACCTACATCCCTTTCTACGGCATCCTGGGAGCCCTCCTTTTCTCAACTTC  
ATCAGGTTTCTGGAGAGCCACTGGTTTGTGTGGGTACACAGATGAATCACATCGTCATGGAGATTGACCAGGAG  
GCCTACCGTGACTGGTTCAGTAGCCAGCTGCAGCCACCTGCAACGTGGAGCAGTCCTTCTTCAACGACTGGTTC  
AGTGGACACCTTAACCTCCAGATTGAGCACCCACTCTTCCCCACCATGCCCGGCACAACTTACACAAGATCGCC  
CCGTGGTGAAGTCTCTATGTGCCAAGCATGGCATTGAATACCAGGAGAAGCCGCTACTGAGGGCCCTGCTGGAC  
ATCATCAGGTCCCTGAAGAAGTCTGGGAAGCTGTGGCTGGACGCCTACCTTACAAATGAAGCCACAGCCCCCGG  
GACACCGTGGGGAAGGGGTGCAGGTGGGGTGATGGCCAGAGGAATGATGGGCTTTTGTCTGAGGGGTGTCCGAG  
AGGCTGGTGTATGCACTGCTCACGGACCCCATGTTGGATCTTTCTCCCTTTCTCCTCTCCTTTTTCTCTTCACAT  
CTCCCCCATAGCACCTTGCCTCATGGGACCTGCCCTCCCTCAGCCGTCAGCCATCAGCCATGGCCCTCCAGTG  
CCTCCTAGCCCCCTTCTTCCAAGGAGCAGAGAGGTGGCCACCGGGGGTGGCTCTGTCTACCTCCACTCTCTGCCC  
CTAAAGATGGGAGGAGACCAGCGGTCCATGGGTCTGGCCTGTGAGTCTCCCTTGCAGCCTGGTCACTAGGCATC  
ACCCCGCTTTGGTTCTTTCAGATGCTCTTGGGGTTCATAGGGGCAGGTCTAGTCGGGCAGGGCCCCCTGACCCCTC  
CCGGCCTGGCTTCACTCTCCCTGACGGCTGCCATTGGTCCACCCTTTTCATAGAGAGGCCTGCTTTGTTACAAAGC  
TCGGGTCTCCCTCCTGCAGCTCGGTTAAGTACCCGAGGCCTCTCTTAAGATGTCCAGGGCCCCAGGCCCGCGGGC  
ACAGCCAGCCCCAAACCTTGGGCCCTGGAAGAGTCTCCACCCCATCACTAGAGTGCTCTGACCCTGGGCTTTTAC  
GGGCCCCATTCCACCGCCTCCCCAACTTGAGCCTGTGACCTTGGGACCAAAGGGGGAGTCCCTCGTCTCTTGTGA  
CTCAGCAGAGGCAGTGGCCACGTTTCAAGGAGGGGCGCGCTGGCCTGGAGGCTCAGCCACCCCTCCAGCTTTTCTT  
CAGGGTGTCTGAGGTCCAAGATTCTGGAGCAATCTGACCCTTCTCCAAAGGCTCTGTTATCAGCTGGGCAGTGC  
CAGCCAATCCCTGGCCATTTGGCCCCAGGGGACGTGGGCCCTGCAGGCTGCAGGAGGGCACTGGAGCTGGGAGGT  
CTCGTCCCAGCCCTCCCCATCTCGGGGCTGCTGTGTGGACGGCGCTGCCTCAGGCACTCTCCTGTCTGAACCTGC  
CCTTACTGTGTTTAACTGTTGCTCCAGGATGCATTCTGATAGGAGGGGGCGGCAGGGCTGGGCCCTTGTGACAA  
CTGCCTTTCACCACATGGCCTTGCCCTCGGTGGCCCTGACTGTGAGGGAGGGCCAGGGAGGCAGAGCGGGAGGGAG  
TCTCAGGAGGAGGCTGCCCTGAGGGGCTGGGGAGGGGGTACCTCATGAGGACCAGGGTGGAGCTGAGAAGAGGAG  
GAGGTGGGGGCTGGAGGTGCTGGTAGCTGAGGGGACGGGCAAGTGAGAGGGGAGGGAGGGAAGTCCTGGGAGGAT  
CCTGAGCTGCTGTTGCAGTCTAACCCTAATCAGTTCTTAGATTGAGGGGAAGGGCAGGCACCAACAACCTCAGA  
ATGGGGGCTTTTCGGGGAGGGCGCCTAGTCCCCCAGCTCTAAGCAGCCAGGAGGGACCTGCATCTAAGCATCTGG  
GTTGCCATGGCAATGGCATGCCCCCAGCTACTGTATGCCCCGACCCCCGCAGAGGCAGAATGAACCCATAGGG  
AGCTGATCGTAATGTTTATCATGTTACTTCCCCACCCCTACATTTTTTGAATAAAATAAGGAATTTTATTCTC

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**FIGURE 231**

MGKGGNQGEAAEREVSVP TFSWEEIQKHNLRTDRWLVIDRKVYNITKWSIQHPGGQRVIGHYAGEDATDAFRAF  
HPDLEFVGKFLKPLLIGELAPEEPSQDHGKNSKITEDFRALRKTAEDMNLFKTNHVFFLLLLLAHIIALESIAWFT  
VFYFGNGWIPTLITAFVLATSQAQAGWLQHDYGHLSVYRKPKWNHLVHKFVIGHLKGASANWWNHRHFQHHAKPN  
IFHKDPDVNMLHVFVLGEWQPIEYGKKKLKYL PYNHQHEYFFLIGPPLLIPMYFYQYQIIMTMIVHKNWVDLAWAV  
SYYIRFFITYIPFYGILGALLFLNFIRFLESHWFVWVTQMNHIVMEIDQEAYRDWFSSQLTATCNVEQSFFNDWF  
SGHLNFQIEHHLFPTMPRHNHLKIAPLVKSLCAKHGIEYQEKPLLRALLDIIRSLKKSGKLWLDAYLHK

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**FIGURE 232**

CCTCGCCGCATCCACTCTCCGGCCGGCCGCCTGCCGCCGCCTCCTCCGTGCGCCCCGCCAGCCTCGCCCCGCGCCG  
TCACCATGAGCCAGGCCTACTCGTCCAGCCAGCGCGTGTCTCTACCGCCGCACCTTCGGCGGCGCCCCGGTCT  
TCCCGCTCGGCTCCCCGCTGAGCTCGCCCCGTGTTCCCGCGGGCGCCTTTTCGGCTCTAAGGGCTCCTCCAGCTCGG  
TGACGTCCCGCGTGTACCAAGGTGTGCGCACGTCTGGGAGGGGCGGGGGCCTGGGGTTCGTGCGGGCCAGCCGGC  
TGGGGACCACCCGCACGCCCTCCTCCTACGGCGCAGGCGAGCTGCTGGACTTCTCACTGGCCGACGCGGTGAACC  
AGGAGTTTCTGACCACGCGCACCAACGAGAAGGTGGAGCTGCAGGAGCTCAATGACCGTTCCGCAATCTACATGG  
AGAAGGTGCGCTTCTGAGCAGCAGAACGCGCTCGCCGCCGAAGTGAACCGGCTCAAGGGCCGCGAGCCGACGC  
GAGTGGCCGAGCTCTACGAGGAGGAGCTGCGGGAGCTGCGGCCAGGTGGAGGTGCTCACTAACAGCGCGCGC  
GCGTCGACGTGAGCGCGACAACCTGCTCGACGACCTGCAGCGGCTCAAGGCCAAGCTGCAGGAGGAGATTGAGT  
TGAAGGAAGAAGCAGAGAACAATTTGGCTGCCTTCCGAGCGGACGTGGATGCAGCTACTCTAGCTCGCATTGACC  
TGGAGCGCAGAATTGAATCTCTCAACGAGGAGATCGCGTTCCTTAAGAAAGTGCATGAAGAGGAGATCCGTGAGT  
TGCAGGCTCAGCTTCAGGAACAGCAGGTCCAGGTGGAGATGGACATGTCTAAGCCAGACCTCACTGCCGCCCTCA  
GGGATATCCGGGCTCAGTATGAGACCATCGCGGCTAAGAACATTTCTGAAGCTGAGGAGTGGTACAAGTCGAAGG  
TGTCAGACCTGACCCAGGCAGCCAACAAGAACAACGACGCCCTGCGCCAGGCCAAGCAGGAGATGATGGAATACC  
GACACCAGATCCAGTCTACACCTGCGAGATTGACGCCCTCAAGGGCACTAACGATTCCCTGATGAGGCAGATGC  
GGGAATTGGAGGACCGATTTGCCAGTGAGGCCAGTGGCTACCAGGACAACATTGCACGCCTGGAGGAGGAAATCC  
GGCACCTCAAGGATGAGATGGCCCGCCATCTGCGCGAGTACCAGGACCTGCTCAACGTGAAGATGGCCCTGGATG  
TGGAGATTGCCACCTACCGGAAGCTGCTGGAGGGAGAGGAGAGCCGGATCAATCTCCCCATCCAGACCTACTCTG  
CCCTCAACTTCCGAGAAACCAGCCCTGAGCAAAGGGGTTCTGAGGTCCATACCAAGAAGACGGTGATGATCAAGA  
CCATCGAGACACGGGATGGGGAGGTCTGTCAGTGAGGCCACACAGCAGCAGCATGAAGTGCTCTTAAAGACGAGAGA  
CCCTCTGCCACCAGAGACCGTCTCACCCTGTCTCACTGCTCCCTGAAGCCCAGCCTTCTTCATCCCAGGACA  
CCACACCCAGCCTCAGTCTCCTCAAATCACAGCCTCTGACCCCTCCTCACTGGCCATCCCTCGTGGTCCCCAACAG  
CGACATAGCCCATCCCTGCCTGGTACAGGCATGCCCCGGCCACCTCTGCGGACCCAGCTGTGAGCCTTGGCTG  
TTGGCAGTGAGTGAGCCTGGCTCTTGTGCTGGATGGAGCCCAGGCGGGAGCGGTGGCCCTGTCCCTCCACCTCT  
GTGACCTCAGGCCTACGCTTTGGCTCTGGAGATAGCCCCAGAGCAGGGTGTGGGATACTGCAGGGCCAGGACTG  
AGCCCCGCAGACCTCCCCAGCCCCTAGCCAGGAGAGAGAAAGCCAGGCAGGTAGCCTGGGGGACTAGCCCTGTG  
GAGACTGGGGGGCTTGAAATTGTCCCCGTGGTCTCTTACTTTCTTTCCCCAGCCCAGGGTGGACTTAGAAAGCA  
GGGGCTACAAGAGGGGAATCCCCGAAGGTGCTGGAGGTGGGAGCAGGAGATTGAGAAGGAGAGAAAGTGGGTGAGA  
TGCTGGAGAAGAGAGGAGAGAGAGAGGCAGAGAGCGGTCTCAGGCTGGTGGGAGGGGCGCCACCTCCCCACGC  
CCTCCCCCCCCCTGCTGCAGGGGCTCTGGAGAGAAACAATAAAGAGATTCACACACAAGCC



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**FIGURE 233**

MSQAYSSSQRVSSYRRTFGGAPVFPLGSPLSSPVFPAPFGSKGSSSSSVTSRVYQVSRTSGGAGGLGSLRASRLG  
TTRTPSSYGAGELLDFSLADAVNQEFLLTTRTNEKVELQELNDRSPIYMEKVRFLQQNALAAEVNRLKGREPTRV  
AELYEEELRELRRQVEVLTNQRARVDVERDNLDDLQRLKAKLQEEIQLKEEAENNLAAFRADVDAATLARIDLE  
RRIESLNEEIAFLKKVHEEEIRELQAQLQEQVQVEMDMSKPDLTAAALRDIRAQYETIAAKNISEAEWYKSKVS  
DLTQAANKNNDALRQAKQEMMEYRHQIQSYTCEIDALKGTNDSLMRQMRELEDRFASEASGYQDNIAARLEEEIRH  
LKDEMARHLREYQDLLNVKMALDVEIATYRKLEGEESRINLPIQTYSALNFRETSPEQRGSEVHTKKTVMIKTI  
ETRDGEVVSEATQQQHEVL

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**FIGURE 234**

AGTCCTCTTCCGGGTGATGGCGGCGGGTGCCCCGGATGTAGCCCTGGCGCAAGCATCTCTCTTTTTTCCACCTC  
GCCTTCCGCGGATTCCCAGCTTGAGAAACACCTCTTTGCCCCGTCA**ATG**CCAAAGAGGAAAGTGACCTTCCAAGGC  
GTGGGAGATGAGGAGGATGAGGATGAAATCATTGTCCCCAAGAAGAAGCTGGTGGACCCTGTGGCTGGGTGACGGG  
GGTCCTGGGAGCCGCTTTAAAGGCAAACACTCTTTGGATAGCGATGAGGAGGAGGATGATGATGATGGGGGGTCC  
AGCAAATATGACATCTTGGCCTCAGAGGATGTAGAAGGTCAGGAGGCAGCCACACTCCCCAGCGAGGGGGGTGTT  
CGGATCACACCCTTTAACCTGCAGGAGGAGATGGAGGAAGGCCACTTTGATGCCGATGGCAACTACTTCCTGAAC  
CGGGATGCTCAGATCCGAGACAGCTGGCTGGACAACATTGACTGGGTGAAGATCCGGGAGCGGCCACCTGGCCAG  
CGCCAGGCCTCAGACTCGGAGGAGGAGGACAGCTTGGGCCAGACCTCAATGAGTGCCCAAGCCCTCTTGAGGGGA  
CTTTTGGAGCTCCTATTGCCTAGAGAGACAGTGGCTGGGGCACTGAGGCGTCTGGGGGCCCCGAGGAGGAGGCAAA  
GGGAGAAAGGGGCCTGGGCAACCCAGTTCCCCCTCAGCGCCTGGACCGGCTCTCCGGGTGGCCGACCAGATGGTG  
GCCCCGGGCAACCTTGGTGTGTACCAGGAAACAAGGGAACGGTTGGCTATGCGTCTGAAGGGTTTGGGGTGTGAG  
ACCCTAGGACCCCAACAATCCCACACCCCCACCTCCCTGGACATGTTGCTGAGGAGTTGGCGGAGGAGGAAGTG  
GAGACCCCAACCCCTACCCAGAGAGGAGAAGCAGAGTCGCGGGGAGATGGTCTGGTGGATGTGATGTGGGAATAT  
AAGTGGGAGAACACGGGGGATGCCGAGCTGTATGGGCCCTTACCAGCGCCCAGATGCAGACCTGGGTGAGTGAA  
GGCTACTTCCCGGACGGTGTATTGCGGGAAGCTGGACCCCCCTGGTGGTCAGTTCTACAACCTCCAAACGCATT  
GACTTTGACCTCTACACCT**TGAG**CCTGCTGGGGGCCCCAGTTTGGTGGGCCCTTCTTTCTGGACTTTGTGGAGGAG  
GCACCAAGTGTCTCAGGCAGCGAGGAAATTGGAGGCCATTTTTCAGTCAATTTCCCTTTCCCAATAAAAGCCTTT  
AGTTGTGTAAAAAAAAAAAAAAAAA

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**FIGURE 235**

MPKRKVTFGVGDEEDEDEIIIVPKKKLVDPVAGSGGPGSRFKGKHSLSDEEEDDDGGSSKYDILASEDVEGQE  
AATLPSEGGVRITPFNLQEEMEEGHFDADGNYFLNRDAQIRDSWLDNIDWVKIRERPPGQRQASDSEEDSLGQT  
SMSAQALLEGLLELLLPRETVAGALRRLGARGGGKGRKGPQPSSPQRDLRLSGLADQMVARGNLGVYQETRERL  
AMRLKGLGCQTLGPHNPTPPPSLDMFAEELAELEELETPTPTQRGEAESRGDGLVDVMWEYKWENTGDAELYGPFT  
SAQMOTWVSEGYFPDGVYCRKLDPPGGQFYNSKRIDFDLYT

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**FIGURE 236**

ACAGAAGTGCTAGAAAGCCAGTGCTCGTGAACCTAAGGAGAAAAAGAACAGACAAGGGAACAGCCTGGACATGGCAT  
CAGAGATCCACATGACAGGCCCAATGTGCCTCATTGAGAACACTAATGGGCGACTGATGGCGAATCCAGAAGCTC  
TGAAGATCCTTTCTGCCATTACACAGCCTATGGTGGTGGTGGCAATTGTGGGCTCTACCGCACAGGCAAATCCT  
ACCTGATGAACAAGCTGGCTGGAAAGAAAAAGGGCTTCTCTCTGGGCTCCACGGTGCAGTCTCACACTAAAGGAA  
TCTGGATGTGGTGTGTGCCCCACCCCAAGAAGCCAGGCCACATCCTAGTTCTGCTGGACACCGAGGGTCTGGGAG  
ATGTAGAGAAGGGTGACAACCAGAATGACTCCTGGATCTTCGCCCTGGCCGTCTCCTGAGCAGCACCTTCGTGT  
ACAATAGCATAGGAACCATCAACCAGCAGGCTATGGACCAACTGTACTATGTGACAGAGCTGACACATAGAATCC  
GATCAAAATCCTCACCTGATGAGAATGAGAATGAGGTTGAGGATTCAGCTGACTTTGTGAGCTTCTTCCCAGACT  
TTGTGTGGACACTGAGAGATTTCTCCCTGGACTTGGAAAGCAGATGGACAACCCCTCACACCAGATGAGTACCTGA  
CATACTCCCTGAAGCTGAAGAAAGGTACCAGTCAAAAAGATGAACTTTTAACTGCCCAGACTCTGTATCCGGA  
AATTCTTCCCAAAGAAAAAATGCTTTGTCTTTGATCGGCCCGTTACCGCAGGAAGCTTGCCCAGCTCGAGAAAC  
TACAAGATGAAGAGCTGGACCCCGAATTTGTGCAACAAGTAGCAGACTTCTGTTCTACATCTTTAGTAATTCCA  
AACTAAAACCTCTTTCAGGAGGCATCCAGGTCAACGGGCCCTCGTCTAGAGAGCCTGGTGTGACCTACGTCAATG  
CCATCAGCAGTGGGGATCTGCCGTGCATGGAGAACGCAGTCCTGGCCTTGCCCAGATAGAGAACTCAGCTGCAG  
TGCAAAAGGCTATTGCCCACTATGAACAGCAGATGGGCCAGAAGGTGCAGCTGCCACAGAAAGCCTCCAGGAGC  
TGCTGGACCTGCACAGGGACAGTGAGAGAGAGGCCATTGAAGTCTTCATCAGGAGTTCCTTCAAAGATGTGGACC  
ATCTATTTCAAAGGAGTTAGCGGCCAGCTAGAAAAAAGCGGGATGACTTTTGTAAACAGAATCAGGAAGCAT  
CATCAGATCGTTGCTCAGGTTTACTTCAGGTCATTTTCAGTCTCTAGAAAGAAGTGAAGGCGGGAATTTATT  
CGAAACCAGGGGGCTATCGTCTCTTTGTTGAGAAGCTACAAGACCTGAAGAAAAAGTACTATGAGGAACCGAGGA  
AGGGGATACAGGCTGAAGAGATTCTGCAGACATACTTGAAATCCAAGGAGTCTATGACTGATGCAATTCTCCAGA  
CAGACCAGACTCTCACAGAAAAAGAAAAGGAGATTGAAGTGAACGTGTGAAAGCTGAGTCTGCACAGGCTTCAG  
CAAAAATGTTGCAGGAAATGCAAAGAAAGAATGAGCAGATGATGGAACAGAAGGAGAGGAGTTATCAGGAACACT  
TGAAACAACCTGACTGAGAAGATGGAGAACGACAGGGTCCAGTTGCTGAAAGAGCAAGAGAGGACCCTCGCTCTTA  
AACTTCAGGAACAGGAGCAACTACTAAAAGAGGGATTTCAAAAAGAAAGCAGAATAATGAAAAATGAGATACAGG  
ATCTCCAGACGAAAATGAGACGACGAAAGGCATGTACCATAAGCTAAAGACCAGAGCCTTCCTGTACCCCTAAC  
CAAGGCATAATTGAAACAATTTTAGAATTTGGAACAAGCGTCACTACATTTGATAATAATTAGATCTTGCATCAT  
AACACCAAAAGTTTATAAAGGCATGTGGTACAATGATCAAAATCATGTTTTTCTTAAAAAAGACTG  
TAAATTGTGCAACAAAGATGCATTTACCTCTGTATCAACTCAGGAAATCTCATAAGCTGGTACCACTCAGGAGAA  
GTTTATCTTCCAGATGACCAGCAGTAGACAAATGGATACTGAGCAGAGTCTTAGGTAAAAGTCTTGGGAAATAT  
TTGGGCATTGGTCTGGCCAAGTCTACAATGTCCCAATATCAAGGACAACCACCCTAGCTTCTTAGTGAAGACAA  
GTACAGTTATCCATTAGATCAAGACTACACGGTCTATGAGCAATAATGTGATTTCTGGACATTGCCCATGTATAA  
TCCTCACTGATGATTTCAAGCTAAAGCAAACCACCTTATACAGAGATCTAGAATCTCTTTATGTTCTCCAGAGGA  
AGGTGGAAGAAACCATGGGCAGGAGTAGGAATTGAGTGATAACAATGGGCTAATGAAGAAAACCTTCTCTTATT  
GTTCAAGTTCATCCAGATTATAACTTCAATGGGACACTTTAGACCATTAGACAATTGACACTGGATTAAACAAATT  
CACATAATGCCAAATACACAATGTATTTATAGCAACGTATAATTTGCAAGATGGACTTTAAAGATGCTGTGTA  
ACTAACTGAAATAATTCAATTACTTATTATTTAGAATGTTAAAGCTTATGATAGTCTTTTCTAATCTTAACAC  
TCATACTTGAAATCTTCCGAGTTTCCCAGAGAGAATATGGGATTTTTTTTGACATTTTGGACCATTTAATA  
ATGCTCTTGTGTTTACCTAGTATATGTAGACTTTGTCTTATGTGTCAAAAGTCCTAGGAAAGTGTTGATGTTTC  
TTATAGCAATTAATAATTTATTTTGAAGTGA

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**FIGURE 237**

MASEIHMTGPMCLIENTNGRLMANPEALKILSAITQPMVVVAIVGLYRTGKSYLMNKLAKKKKGFSLGSTVQSHT  
KGIWMWCVPHPKKPGHILVLLDTEGLGDVEKGDNQND SWIFALAVLLSSTFVYNSIGTINQQAMDQLYYVTELTH  
RIRSKSSPDENENEVEDSADFVSFFPDFVWTLRDFSLEADGQPLTPDEYLTYSCLKKKGTSQKDETFNLPRLC  
IRKFFPKKKCFVFD RPVHRRKLAQLEKLQDEELDPEFVQQVADFC SYIFSNSKTKTLSGGIQVNGPRLESVLTY  
VNAISSGDLPCMENAVLALAQIENSAAVQKAI AHYEQQMGQKVLPTESLQELDLHRDSEREAIEVFIRSSF KD  
VDHLFQKELAAQLEKKRDDFCQNQEASSDRCSGLLQVIFSPLEEEVKAGIYSKPGGYRLFVQKLQDLKKKYEE  
PRKGIQAEEILQTYLKSKE SMTDAILQTDQTLTEKEKEIEVERVKAESAQASAKMLQEMQRKNEQMMEQKERSYQ  
EHLQQLTEKMENDRVQLLKEQERTLALKLQEQEQLLKEGFQKESRIMKNEIQDLQTKMRRRKACTIS

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**FIGURE 238**

ACACCAGCCCTCAGTCACTGGGAGAAGAACCTCTCATACCCTCGGTGCTCCAGTCCCAGCTCACTCAGCCACAC  
ACACCATGTGTGAAGAGGAGACCACCGCGCTCGTGTGTGACAATGGCTCTGGCCTGTGCAAGGCAGGCTTCGCAG  
GAGATGATGCCCCCGGGCTGTCTTCCCCTCCATTGTGGGCCGCCCTCGCCACCAGGGTGTGATGGTGGGAATGG  
GCCAGAAAGACAGCTATGTGGGGGATGAGGCTCAGAGCAAGCGAGGGATCCTAACTCTCAAATACCCCATTTGAAC  
ACGGCATCATCACCAACTGGGATGACATGGAGAAGATCTGGCACCCTCCTTCTACAATGAGCTGCGTGTAGCAC  
CTGAAGAGCACCCACCCCTGCTCACAGAGGCTCCCCTAAATCCCAAGGCCAACAGGGAAAAGATGACCCAGATCA  
TGTTTGAAACCTTCAATGTCCCTGCCATGTACGTCGCCATTCAAGCTGTGCTCTCCCTCTATGCCTCTGGCCGCA  
CGACAGGCATCGTCTGGATTTCAGGTGATGGCGTCACCCACAATGTCCCCATCTATGAAGGCTATGCCCTGCCCC  
ATGCCATCATGCGCCTGGACTTGGCTGGCCGTGACCTCACGGACTACCTCATGAAGATCCTCACAGAGAGAGGCT  
ATTCTTTGTGACCACAGCTGAGAGAGAAATTGTGCGAGACATCAAGGAGAAGCTGTGCTATGTGGCCCTGGATT  
TTGAGAATGAGATGGCCACAGCAGCTTCCTCTTCCCTCCCTGGAGAAGAGCTATGAGCTGCCAGATGGGCAGGTTA  
TCACCATTGGCAATGAGCGCTTCCGCTGCCCTGAGACCCTCTTCCAGCCTTCCTTTATTGGCATGGAGTCCGCTG  
GAATTTCATGAGACAACCTACAATTCCATCATGAAGTGTGACATTGACATCCGTAAGGACTTATATGCCAACAAATG  
TCCTCTCTGGGGGCACCACCATGTACCCTGGCATTGCTGACAGGATGCAGAAGGAGATCACAGCCCTGGCCCCCA  
GCACCATGAAGATCAAGAFTATTGCTCCCCCAGAGCGGAAGTACTCAGTCTGGATCGGGGGCTCTATCCTGGCCT  
CTCTCTCCACCTTCCAGCAGATGTGGATCAGCAAGCCTGAGTATGATGAGGCAGGGCCCTCCATTGTCCACAGGA  
AGTGCTTCTTAAAGTCAGAACAGGTTCTCCAAGGATCCCCCTCGAGACTACTCTGTTACCAGTCATGAAACATTAA  
ACCTACAAGCCTT

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**FIGURE 239**

MCEEETALVCDNGSGLCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQS KR GILTLKYP IEHG  
IITNWDDMEKIWHHSFYNELRVAPEEHPTLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTT  
GIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILTERGYSFVTTAEREIVRDIKEKLCYVALDFE  
NEMATAASSSSLEKSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGIHETTYSIMKCDIDIRKDLYANNVL  
SGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKPEYDEAGPSIVHRKC  
F

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**FIGURE 240A**

GCCTGTCAGCGCCAGCGTCCGAGCGGGCGGGCCGAGCTCCCGGAGCGGCCTGGCCCCGAGCCCCGAGCGGGCGTCCG  
CTCAGCAGCAGGTGCGGGCCGCGCAGCCCCATCCAGCCCCGCGCCCGCCATGCCGTCCGCGGGCCCCGCCTGAGC  
TGCGGTCTCCGCGCGCGGGCGGGCCTGGGGACGGCGGGGCCATGCGCGCGCTGCCCTAACGATGCGGGCGCGGC  
GCCCCCGCGCTGGCGCTGGCCCTGGGGCCTGGGCCTGTGGCTCGGGGCGCTGGCGGGGGGGCCCCGGGCGCGGCTG  
CGGGCCCTGCGAGCCCCCTGCCTCTGCGGGCCAGCGCCCGGCGCCGCTGCCGCGTCAACTGCTCGGGCCGCGG  
GCTGCGGACGCTCGGTCCCAGCTGCGCATCCCCGCGGACGCCACAGCGCTAGACGTCTCCACAACCTGCTCCG  
GGCGCTGGACGTTGGGCTCCTGGCGAACCTCTCGGCGCTGGCAGAGCTGGATATAAGCAACAACAAGATTCTAC  
GTTAGAAGAAGGAATATTTGCTAATTTATTTAATTTAAGTGAAATAAACCTGAGTGGGAACCCGTTTGAGTGTGA  
CTGTGGCCTGGCGTGGCTGCCGCGATGGGCGGAGGAGCAGCAGGTGCGGGTGGTGCAGCCGAGGCAGCCACGTG  
TGCTGGGCGCTGGCTCCCTGGCTGGCCAGCCTCTGCTTGGCATCCCCCTTGTGAGACAGTGGCTGTGGTGAGGAGTA  
TGTCGCTGCGCTCCCTGACAACAGCTCAGGCACCGTGGCAGCAGTGTCTTTTTCAGCTGCCCCACGAAGGCCTGCT  
TCAGCCAGAGGCCTGCAGCGCCTTCTGCTTCTCCACCGGCCAGGGCCTCGCAGCCCTCTCGGAGCAGGGCTGGTG  
CCTGTGTGGGGCGGGCCAGCCCTCCAGTGCCTCCTTTGCCTGCCTGTCCCTCTGCTCCGGCCCCCGCCACCTCC  
TGCCCCCACCTGTAGGGGGCCCCACCCTCCTCCAGCAGCTCTTCCCTGCCTCCCCAGGGGCCACCCTGGTGGGGCC  
CCACGGACCTCTGGCCTCTGGCCAGCTAGCAGCCTTCCACATCGCTGCCCCGCTCCCTGTCACTGCCACACGCTG  
GGACTTCGGAGACGGCTCCGCCGAGGTGGATGCCGCTGGGCCGGCTGCCTCGCATCGCTATGTGCTGCCTGGGCG  
CTATCAGGTGACGGCCGTGCTGGCCCTGGGGCGGGCTCAGCCCTGCTGGGGACAGACGTGCAGGTGGAAGCGGC  
ACCTGCCGCCCTGGAGCTCGTGTGCCCGTCTCGGTGCAGAGTGACGAGAGCCTTGACCTCAGCATCCAGAACC  
CGGTGGTTCAGGCCTGGAGGCCGCTACAGCATCGTGGCCCTGGGCGAGGAGCGGGCCGAGCGGTGCACCCGCT  
CTGCCCCCTCGGACACGGAGATCTTCCCTGGCAACGGGCAGTGTACCGCCTGGTGGTGGAGAAGGCGGCCTGGCT  
GCAGGCGCAGGAGCAGTGTAGGCCTGGGCGGGGGCCGCCCTGGCAATGGTGGACAGTCCCGCCGTGCAGCGCTT  
CCTGGTCTCCCGGGTCAACCAGGAGCCTAGACGTGTGGATCGGCTTCTCGACTGTGCAGGGGGTGGAGGTGGGGCC  
AGCGCCGACAGGGCGAGGCCTTACGCCTGGAGAGCTGCCAGAAGTGGCTGCCCGGGGAGCCACACCCAGCCACAGC  
CGAGCACTGCGTCCGGCTCGGGGCCACCGGTGGTGTAACACCGACCTGTGCTCAGCGCCGCACAGCTACGTCTG  
CGAGCTGCAGCCCGGAGGCCAGTGCAGGATGCCGAGAACCTCCTCGTGGGAGCGCCAGTGGGGACCTGCAGGG  
ACCCCTGACGCCTCTGGCACAGCAGGACGGCCTCTCAGCCCCGACAGCCCGTGGAGGTGATGGTATTCCCGGG  
CCTGCGTCTGAGCCGTGAAGCCTTCCCTACACAGGCCGAATTTGGGACCCAGGAGCTCCGGCGGGCCCGCCAGCT  
GCGGCTGCAGGTGTACCGGCTCCTCAGCACAGCAGGGACCCCGGAGAACGGCAGCGAGCCTGAGAGCAGGTCCCC  
GGACAACAGGACCCAGCTGGCCCCCGCGTGCATGCCAGGGGGACGCTGGTGCCCTGGAGCCAACATCTGCTTGCC  
GCTGGACGCTCTTGCCACCCCCAGGCCTGCGCCAATGGCTGCACGTGAGGGCCAGGGCTACCCGGGGCCCCCTA  
TGCGCTATGGAGAGAGTTCTCTTCTCCGTTGCCGCGGGGGCCCCCGCGCAGTACTCGGTACCCCTCCACGGCCA  
GGATGTCTCATGCTCCCTGGTGACCTCGTTGGCTTGCAGCACGACGCTGGCCCTGGCGCCCTCCTGCACTGCTC  
GCCGCTCCCGGCCACCCTGGTCCCCAGGCCCGTACCTCTCCGCCAACGCCTCGTCATGGCTGCCCACTTGCC  
AGCCAGCTGGAGGGCACTTGGGCCTGCCCTGCTGTGCCCTGCGGCTGCTTGAGCCACGGAACAGCTACCCGT  
GCTGCTGGGCTTGAGGGCCAACCCTGGACTGCGGATGCCTGGGCGCTATGAGGTCCGGGCAGAGGTGGGCAATGG  
CGTGTCCAGGCACAACCTCTCTGCACTTTGACGTGGTCTCCCCAGTGGCTGGGCTGCGGGTCTATCTACCCTGC  
CCCCCGCAGCGCCGCTCTACGTGCCACCAACGGCTCAGCCTTGGTGTCTCAGGTGGACTCTGGTGCCAACGC  
CACGGCCACGGCTCGCTGGCCTGGGGCAGTGTACGCGCCGCTTTGAGAATGTCTGCCCTGCCCTGGTGGCCAC  
CTTCTGTCGGGCTGCCCTGGGAGACCAACGATACCCTGTTCTCAGTGGTAGCACTGCCGTGGCTCAGTGAGGG  
GGAGCAGTGGTGGACGTGGTGGTGGAAAACAGCGCCAGCCGGGCCAACCTCAGCCTGCGGGTGACGGCGGAGGA  
GCCCATCTGTGGCCTCCGCGCCACGCCAGCCCCGAGGCCCGTGTACTGCAGGGAGTCCCTAGTGAGGTACAGCCC  
CGTGGTGGAGGCCGCTCGGACATGGTCTTCCGGTGGACCATCAACGACAAGCAGTCCCTGACCTTCCAGAACGT  
GGTCTTCAATGTCAATTTATCAGAGCGCGGCGGTCTTCAAGCTCTCACTGACGGCCTCCAACCACGTGAGCAACGT  
CACCGTGAACATAACGTAACCGTGGAGCGGATGAACAGGATGCAGGGTCTGCAGGTCTCCACAGTGCCGGCCGT  
GCTGTCCCCAATGCCACGCTAGCACTGACGGCGGGCGTGTGGTGGACTCGGCCGTGGAGGTGGCCTTCTGTG  
GAACTTTGGGGATGGGGAGCAGGCCCTCCACCAGTTCCAGCCTCCGTACAACGAGTCTTCCCGGTTCCAGACCC  
CTCGGTGGCCAGGTGCTGGTGGAGCACAATGTGATGCACACCTACGCTGCCCCAGGTGAGTACCTCCTGACCGT  
GCTGGCATCTAATGCCTTCGAGAACCTGACGCAGCAGGTGCCTGTGAGCGTGCAGCGCTCCCTGCCCTCCGTGGC



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**FIGURE 240B**

TGTGGGTGTGAGTGACGGCGTCTGGTGGCCGGCCGGCCCGTCACCTTCTACCCGCACCCGCTGCCCTCGCCTGG  
GGGTGTTCTTTACACGTGGGACTTCGGGGACGGCTCCCTGTCTTGACCCAGAGCCAGCCGGCTGCCAAACACAC  
CTATGCCTCGAGGGGCACCTACCACGTGCGCCTGGAGGTCAACAACACGGTGAGCGGTGCGGCGGCCAGGCGGA  
TGTGCGCGTCTTTGAGGAGCTCCGCGGACTCAGCGTGGACATGAGCCTGGCCGTGGAGCAGGGCGCCCCCGTGGT  
GGTCAGCGCCGCGGTGCAGACGGGCGACAACATCACGTGGACCTTCGACATGGGGGACGGCACCGTGCTGTGCGG  
CCCGGAGGCAACAGTGGAGCATGTGTACCTGCGGGCACAGAACTGCACAGTGACCGTGGGTGCGGCCAGCCCCGC  
CGGCCACCTGGCCCGGAGCCTGCACGTGCTGGTCTTCGTCTGGAGGTGCTGCGCGTTGAACCCGCGCCTGCAT  
CCCCACGCAGCCTGACGCGCGGCTCACGGCCTACGTACCCGGGAACCCGGCCCACTACCTCTTCGACTGGACCTT  
CGGGGATGGCTCCTCCAACACGACCGTGCGGGGGTGCCCGACGGTGACACACAACCTTCACGCGGAGCGGCACGTT  
CCCCCTGGCGCTGGTGCTGTCCAGCCGCGTGAACAGGGCGCATTACTTCACCAGCATCTGCGTGGAGCCAGAGGT  
GGGCAACGTACCCCTGCAGCCAGAGAGGCAGTTTGTGCAGCTCGGGGACGAGGCCTGGCTGGTGGCATGTGCCTG  
GCCCCGTTCCTTACCGCTACACCTGGGACTTTGGCACCGAGGAAGCCGCCCCACCCGTGCCAGGGGCCCTGA  
GGTGACGTTTCATCTACCGAGACCCAGGCTCCTATCTTGTGACAGTACCGCGTCCAACAACATCTCTGCTGCCAA  
TGACTCAGCCCTGGTGGAGGTGCAGGAGCCCGTGTGGTACCAGCATCAAGGTCAATGGCTCCCTTGGGCTGGA  
GCTGCAGCAGCCGTACCTGTTCTCTGCTGTGGGCGGTGGGCGCCCCGCCAGCTACCTGTGGGATCTGGGGGACGG  
TGGGTGGCTCGAGGGTCCGGAGGTACCCACGCTTACAACAGCACAGGTGACTTCACCGTTAGGGTGGCCGGCTG  
GAATGAGGTGAGCCGAGCGAGGCCTGGCTCAATGTGACGGTGAAGCGCGCGTGCGGGGGCTCGTCGTCAATGC  
AAGCCGCACGGTGGTGCCCTGAATGGGAGCGTGAGCTTCAGCACGTGCTGAGGCCGGCAGTGATGTGCGCTA  
TTCTGGGTGCTCTGTGACCGCTGCACGCCATCCCTGGGGGTCTTACCATCTTTACACCTTCGCTCCGTGGG  
CACCTTCAATATCATCGTCACGGCTGAGAACGAGGTGGGCTCCGCCCCAGGACAGCATCTTCGTCTATGTCTGCA  
GCTCATAGAGGGGCTGCAGGTGGTGGGCGGTGGCCGCTACTTCCCCACCAACCACACGGTACAGCTGCAGGCCGT  
GGTTAGGGATGGCACCAACGTCTCTACAGCTGGACTGCCTGGAGGGACAGGGGCCCGGCCCTGGCCGGCAGCGG  
CAAAGGCTTCTCGCTACCGTGCTCGAGGCCGGCACCTACCATGTGCAGCTGCGGGCCACCAACATGCTGGGCAG  
CGCTGGGCGGACTGCACCATGGACTTCGTGGAGCCTGTGGGGTGGCTGATGGTGACCGCCTCCCCGAACCCAGC  
TGCCGTCAACACAAGCGTCACCTCAGTGCCGAGCTGGCTGGTGGCAGTGGTGTCGTATACACTTGGTCTTTGGA  
GGAGGGGCTGAGCTGGGAGACCTCCGAGCCATTTACCACCCATAGCTTCCCCACACCCGGCCTGCATTGGTCA  
CATGACGGCAGGGAACCCGCTGGGCTCAGCCAACGCCACCGTGGAAGTGGATGTGCAGGTGCCTGTGAGTGGCCT  
CAGCATCAGGGCCAGCGAGCCCGGAGGCAGCTTCGTGGCGGCGGGTCTCTGTGCCCTTTTGGGGGACAGCTGGC  
CACGGGCACCAATGTGAGCTGGTGTGGGCTGTGCCGGCGGCAGCAGCAAGCGTGGCCCTCATGTACCATGGT  
CTTCCCGGATGCTGGCACCTTCTCCATCCGGCTCAATGCCTCCAACGCAGTCAGCTGGGTCTCAGCCACGTACAA  
CCTCACGGCGGAGGAGCCCATCGTGGGCTGGTGTGTGGGCCAGCAGCAAGGTGGTGGCGCCCGGGCAGCTGGT  
CCATTTTCAGATCTGTGGCTGCCGCTCAGCTGTACCTTCCGCTGCAGGTGCGCGGGGCCAACCCCGAGGT  
GCTCCCCGGGCCCCGTTTCTCCACAGCTTCCCCCGCGCTCGGAGACCACGTGGTGAGCGTGCGGGGCAAAAACCA  
CGTGAGCTGGGCCCAGGCGCAGGTGCGCATCGTGGTGTGGAGGCCGTGAGTGGGCTGCAGATGCCAACTGCTG  
CGAGCCTGGCATCGCCACGGGCACTGAGAGGAACCTCACAGCCCGCTGCAGCGCGGCTCTCGGGTTCGCTACGC  
CTGGTACTTCTCGCTGCAGAAGGTCCAGGGCGACTCGCTGGTTCATCTGTGCGGCCGCGACGTACCTACACGCC  
CGTGGCCGCGGGGCTGTTGGAGATCCAGGTGCGCGCCTTCAACGCCCTGGGCAGTGAGAACCGCACGCTGGTGT  
GGAGGTTTACAGGACGCCGTCCAGTATGTGGCCCTGCAGAGCGGGCCCTGCTTACCAACCGCTCGGCGCAGTTTGA  
GGCCGCCACAGCCCCAGCCCCGGCGTGTGGCCTACCACTGGGACTTTGGGGATGGGTGCGCCAGGGCAGGACAC  
AGATGAGCCCAGGGCCGAGCACTCCTACCTGAGGCCTGGGGACTACCGCGTGCAGGTGAACGCCTCCAACCTGGT  
GAGCTTCTTCGTGGCGCAGGCCACGGTGACCGTCCAGGTGCTGGCCTGCCGGGAGCCGGAGGTGGACGTGGTCT  
GCCCCTGCAGGTGCTGATGCGGCGATCACAGCGCAACTACTTGGAGGCCACGTTGACCTGCGCGACTGCGTCAC  
CTACCAGACTGAGTACCGCTGGGAGGTGTATCGCACCGCCAGCTGCCAGCGGCCGGGGCGCCAGCGCGTGTGGC  
CCTGCCCCGGCGTGGACGTGAGCCGGCCTCGGCTGGTGTGCGCGGCTGGCGCTGCTGTGGGGCACTACTGCTT  
IGTGTGTTGTGCTGTCAATTTGGGGACACGCCACTGACACAGAGCATCCAGGCCAATGTGACGGTGGCCCCGAGCG  
CCTGGTGGCCATCATTGAGGGTGGCTCATACCGCGTGTGGTTCAGACACACGGGACCTGGTGTGGATGGGAGCGA  
GTCTTACGACCCCAACCTGGAGGACGGCGACCAGACGCCGCTCAGTTTCCACTGGGCCTGTGTGGCTTCGACACA  
GAGGGAGGCTGGCGGGTGTGCGCTGAACCTTGGGGCCCGCGGGAGCAGCACGGTCACCATTCACGGGAGCGGCT

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**FIGURE 240C**

GGCGGCTGGCGTGGAGTACACCTTCAGCCTGACCGTGTGGAAGGCCGGCCGCAAGGAGGAGGCCACCAACCAGAC  
GGTGCTGATCCGGAGTGGCCGGGTGCCATTGTGTCTTGGAGTGTGTGTCTGCAAGGCACAGGCCGTGTACGA  
AGTGAGCCGCAGCTCCTACGTGTACTTGGAGGGCCGCTGCCTCAATTGCAGCAGCGGCTCCAAGCGAGGGCGGTG  
GGCTGCACGTACGTTTCAGCAACAAGACGCTGGTGTGGATGAGACCACCACATCCACGGGCAGTGCAGGCATGCG  
ACTGGTGTGTCGGCGGGGCGTGTGCGGGACGGCGAGGGATACACCTTCACGCTCACGGTGTGGGCCGCTCTGG  
CGAGGAGGAGGGCTGCGCCTCCATCCGCTGTCCCCAACCGCCCGCCGCTGGGGGGCTCTTGCCGCTCTTCCC  
ACTGGGCGCTGTGCACGCCCTCACCACCAAGGTGCACTTCGAATGCACGGGCTGGCATGACGCGGAGGATGTCTGG  
CGCCCCGCTGGTGTACGCCCTGTGTGCTGCGGCGCTGTGCGCAGGGCCACTGCGAGGAGTTCTGTGTCTACAAGGG  
CAGCCTCTCCAGCTACGGAGCCGTGTGCTGCCCCGGGTTTCAGGCCACACTTCGAGGTGGGCTGGCCGTGGTGGT  
GCAGGACCAGCTGGGAGCCGCTGTGGTGTGCTGCGCCAGGGCCACTGCGAGGAGTTCTGTGTCTACAAGGG  
CGCAACGGGGCTCACAGTCTGGCTGCACGGGCTCACCGCTAGTGTGCTCCAGGGCTGTGTCGGCAGGCCGATCC  
CCAGCACGTCACTGAGTACTCGTTGGCCCTGGTCAACGTGTGAACGAGTACGAGCGGGCCCTGGACGTGGCGGC  
AGAGCCCAAGCACGAGCGGCAGCACCGAGCCAGATACGCAAGAATATCACGAGACTCTGGTGTCCCTGAGGGT  
CCCACTGTGGATGACATCCAGCAGATCGCTGTGCGCTGGCCAGTGCATGGGGCCAGCAGGGAGCTCGTATG  
CCGCTCGTGCCTGAAGCAGACGCTGCACAAGCTGGAGGCCATGATGCTCATCTGCAGGCAGAGACCACCGCGGG  
CACCGTGACGCCACCGCCATCGGAGACAGCATCTCAACATCACAGGAGACCTCATCCACCTGGCCAGCTCGGA  
CGTGCGGGCACCACAGCCCTCAGAGCTGGGAGCCGAGTCAACATCTCGGATGGTGGCGTCCAGGCCTACAACCT  
GACCTCTGCCCTCATGCGCATCTCATGCGCTCCCGCGTGTCTCAACGAGGAGCCCTGACGCTGGCGGGCGAGGA  
GATCGTGGCCCAGGGCAAGCGCTCGGACCCGCGGAGCCTGCTGTGCTATGGCGGCGCCCAAGGGCTGGCTGCCA  
CTTCTCCATCCCCGAGGCTTTTCAGCGGGGCCCTGGCCAACTCAGTGACGTGGTGCAGCTCATCTTTCTGGTGG  
CTCCAATCCCTTTCCCTTTGGCTATATCAGCAACTACACCGTCTCCACCAAGGTGGCCTCGATGGCATTCCAGAC  
ACAGGCCGGCGCCAGATCCCCATCGAGCGGCTGGCCCTCAGAGCGCGCCATCACCGTGAAGGTGCCCAACAACCTC  
GGACTGGGCTGCCCCGGGGCCACCGCAGCTCCGCCAACTCCGCCAACTCCGTTGTGGTCCAGCCCCAGGCCTCCGT  
CGGTGTCTGTGGTACCCTGGACAGCAGCAACCCTGCGGCCGGGCTGCATCTGCAGCTCAACTATACGCTGTGGA  
CGGCCACTACCTGTCTGAGGAACCTGAGCCCTACCTGGCAGTCTACCTACACTCGGAGCCCCGGCCCAATGAGCA  
CAACTGCTCGGCTAGCAGGAGGATCCGCCAGAGTCACTCCAGGGTGTGACCAACGGCCCTACACCTTCTTCAT  
TTCCCCGGGGAGCAGAGACCAGCGGGGAGTTACCATCTGAACCTCTCCAGCCACTTCCGCTGGTGGCGCTGCA  
GGTGTCCGTGGGCTGTACAGTCCCTGTGCCAGTACTTCAGCGAGGAGGACATGGTGTGGCGGACAGAGGGGCT  
GCTGCCCCCTGGAGGAGACCTCGCCCCGCCAGGCCGTGTGCTCACCCGCCACCTCACCGCCTTCGGCGCCAGCCT  
CTTCGTGCCCCCAAGCCATGTCCGCTTTGTGTTTCTGAGCCGACAGCGGATGTAACTACATCGTTCATGTGAC  
ATGTGCTGTGTGCTGGTGACCTACATGGTTCATGGCCGCCATCCTGCACAAGCTGGACCAGTTGGATGCCAGCCG  
GGGCCGCGCCATCCCTTTCTGTGGGCAGCGGGGCGCTTCAAGTACGAGATCCTCGTCAAGACAGGCTGGGGCCG  
GGGCTCAGGTACCACGGCCACGTGGGCATCATGCTGTATGGGGTGGACAGCCGGAGCGGCCACCGGCACCTGGA  
CGGCGACAGAGCCTTCCACCGCAACAGCCTGGACATCTTCCGGATCGCCACCCCGCACAGCCTGGGTAGCGTGTG  
GAAGATCCGAGTGTGGCAGCAACAAGGGCTCAGCCCTGCCTGGTTCCCTGCAGCACGTTCATCGTCAGGGACCT  
GCAGACGGCACGCAGCGCCTTCTTCCTGGTCAATGACTGGCTTTCCGTGGAGACGGAGGCCAACGGGGGCTGGT  
GGAGAAGGAGGTGTGGCCGCGAGCGACGCAGCCCTTTTTCGCTTCCGGCGCCTGCTGGTGGCTGAGCTGCAGCG  
TGGCTTCTTTGACAAGCACATCTGGCTCTCCATATGGGACCGGCCGCTCGTAGCCGTTTCACTCGCATCCAGAG  
GGCCACCTGCTGCGTTCTCCTCATCTGCCTCTTCTGGGCGCCAACGCCGTGTGGTACGGGGCTGTTGGCGACTC  
TGCCTACAGCACGGGGCATGTGTCCAGGCTGAGCCCGCTGAGCGTCGACACAGTCGCTGTTGGCCTGGTGTCCAG  
CGTGGTTGTCTATCCCGTCTACCTGGCCATCCTTTTTCTCTTCCGGATGTCCCGAGCAAGGTGGCTGGGAGCCC  
GAGCCCCACACCTGCCGGGCAGCAGGTGTGGACATCGACAGCTGCCTGGACTCGTCCGTGCTGGACAGCTCCTT  
CCTCACGTTCTCAGGCCTCCACGCTGAGGCCTTTGTTGGACAGATGAAGAGTGAAGTGTGTTTCTGGATGATTCTAA  
GAGTCTGGTGTGCTGGCCCTCCGGCGAGGGAACGCTCAGTTGGCCGGACCTGCTCAGTGACCCGTCCATTGTGGG  
TAGCAATCTGCGGCAGCTGGCACGGGGCCAGGCGGGCCATGGGCTGGGCCAGAGGAGGACGGCTTCTCCCTGGC  
CAGCCCCCTACTCGCCTGCCAAATCCTTCTCAGCATCAGATGAAGACCTGATCCAGCAGGTCCCTTGGCGAGGGGT  
CAGCAGCCAGCCCCCTACCAAGACACCCACATGGAACGGACCTGCTCAGCAGCCTGTCCAGCACTCCTGGGGA  
GAAGACAGAGACGCTGGCGCTGCAGAGGCTGGGGGAGCTGGGGCCACCCAGCCAGGCCTGAACTGGGAACAGCC

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**FIGURE 240D**

CCAGGCAGCGAGGCTGTCCAGGACAGGACTGGTGGAGGGTCTGCGGAAGCGCCTGCTGCCGGCCTGGTGTGCCTC  
CCTGGCCACGGGCTCAGCCTGCTCCTGGTGGCTGTGGCTGTCTCAGGGTGGGTGGGTGCGAGCTTCCC  
CCGGGGCGTGAGTGTTGCGTGGCTCCTGTCCAGCAGCGCCAGCTTCCTGGCCTCATTCTCGGCTGGGAGCCACT  
GAAGGTCTTGCTGGAAGCCCTGTACTTCTCACTGGTGGCCAAGCGGCTGCACCCGGATGAAGATGACACCCTGGT  
AGAGAGCCCCGGCTGTGACGCCTGTGAGCGCACGTGTGCCCCGCTACGGCCACCCACGGCTTTGCACTCTTCCT  
GGCCAAGGAAGAAGCCCCGAAGGTCAAGAGGCTACATGGCATGCTGCGGAGCCTCCTGGTGTACATGCTTTTTCT  
GCTGGTGACCCTGCTGGCCAGCTATGGGGATGCCTCATGCCATGGGCACGCCTACCGTCTGCAAAGCGCCATCAA  
GCAGGAGCTGCACAGCCGGGCCTTCCTGGCCATCACGCGGTCTGAGGAGCTCTGGCCATGGATGGCCCCACGTGCT  
GCTGCCCTACGTCCACGGGAACAGTCCAGCCCAGAGCTGGGGCCCCCACGGCTGCGGCAGGTGCGGCTGCAGGA  
AGCACTCTACCCAGACCCTCCCGGCCCCAGGGTCCACACGTGCTCGGCCGAGGAGGCTTCAGCACCAGCGATTA  
CGACGTTGGCTGGGAGAGTCTCACAATGGCTCGGGGACGTGGGCCTATTACGCGCCGGATCTGCTGGGGGCATG  
GTCTGGGGCTCCTGTGCCGTGTATGACAGCGGGGGCTACGTGCAGGAGCTGGGCCTGAGCCTGGAGGAGAGCCG  
CGACCGGCTGCGCTTCCTGCAGCTGCACAACTGGCTGGACAACAGGAGCCGCGCTGTGTTCTGGAGCTCACGCG  
CTACAGCCCCGGCGTGGGGCTGCACGCGCGCGTCAAGCTGCGCCTCGAGTTCCCGGCGGCGGCGCGCCCTGGC  
CGCCCTCAGCGTCCGCCCCCTTTGCGCTGCGCCGCTCAGCGCGGGCCTCTCGCTGCCTCTGCTCACCTCGGTGTG  
CCTGCTGCTGTTGCGCGTGCACTTCGCCGTGGCCGAGGCCCGTACTTGGCACAGGGAAGGGCGCTGGCGCGTGCT  
GCGGCTCGGAGCCTGGGCGCGGTGGCTGCTGGTGGCGCTGACGGCGGCCACGGCACTGGTACGCCTCGCCAGCT  
GGGTGCCGCTGACCGCCAGTGGACCCGTTTCGTGCGCGGCCCGCCGCGCGCTTCACTAGCTTCGACCAGGTGGC  
GCAGCTGAGCTCCGACGCCGTGGCCTGGCGGCTCGCTGCTCTTCCTGCTTTTGGTCAAGGCTGCCAGCAGCT  
ACGCTTCGTGCGCCAGTGGTCCGTCTTTGGCAAGACATTATGCCGAGCTCTGCCAGAGCTCCTGGGGGTACCTT  
GGGCTGGTGGTGCTCGGGGTAGCCTACGCCCAGCTGGCCATCCTGCTCGTGTCTTCCTGTGTGGACTCCCTCTG  
GAGCGTGGCCCAGGCCCTGTTGGTGTGTGCCCTGGGACTGGGCTCTCTACCCTGTGTCTCGCCAGTCTCGCA  
CCTGTACCCCTGCTGTGTGTGGGGCTCTGGGCACTGCGGCTGTGGGGCGCCCTACGGCTGGGGGTGTTATTCT  
CCGCTGGCGCTACCACGCCTTGCGTGGAGAGCTGTACCGGCCGGCCTGGGAGCCCCAGGACTACGAGATGGTGGA  
GTTGTTCTGCGCAGGCTGCGCCTCTGGATGGGCCTCAGCAAGGTCAAGGAGTTCGCCACAAAGTCCGCTTTGA  
AGGGATGGAGCCGTGCCCTCTCGCTCCTCCAGGGGCTCCAAGGTATCCCCGATGTGCCCCACCCAGCGCTGG  
CTCCGATGCCCTCGACCCCTCCACCTCCTCCAGCCAGCTGGATGGGCTGAGCGTGAGCCTGGGCGGCTGGGGAC  
AAGGTGTGAGCCTGAGCCCTCCCGCCTCCAAGCCGTGTTTCGAGGCCCTGCTCACCCAGTTTGACCGACTCAACCA  
GGCCACAGAGGACGTCTACCAGCTGGAGCAGCAGCTGCACAGCCTGCAAGGCCGAGGAGCAGCCGGGCGCCCGC  
CGGATCTTCCCGTGGCCCATCCCCGGGCTGCGGCCAGCACTGCCCAGCCGCTTGCCCGGGCCAGTCGGGGTGT  
GGACCTGGCCACTGGCCCCAGCAGGACACCCCTTCGGGCCAAGAACAAGGTCCACCCAGCAGCACTTAGTCCTC  
CTTCCTGGCGGGGGTGGGCCGTGGAGTCGGAGTGGACACCGCTCAGTATTACTTTCTGCCGCTGTCAAGGCCGAG  
GGCCAGGCAGAAATGGCTGCACGTAGGTTCCCCAGAGAGCAGGCAGGGGCATCTGTCTGTCTGTGGGCTTCAGCAC  
TTTAAAGAGGCTGTGTGGCCAACCAGGACCCAGGGTCCCCCTCCCCAGCTCCCTTGGGAAGGACACAGCAGTATTG  
GACGGTTTCTAGCCTCTGAGATGCTAATTTATTTCCCCGAGTCTCAGGTACAGCGGGCTGTGCCCGGCCACC  
CCCTGGGCAGATGTCCCCACTGCTAAGGCTGCTGGCTTCAGGGAGGGTTAGCCTGCACCGCCGCCACCCTGCCC  
CTAAGTTATTACCTCTCCAGTTCCTACCGTACTCCCTGCACCGTCTCACTGTGTGTCTCGTGTCAAGGCTGATA  
TGGTGTAAATGTGTATATTTTTGTATGTCACTATTTTCACTAGGGCTGAGGGGCTGCGCCCAGAGCTGGCCT  
CCCCAACACCTGCTGCGCTTGGTAGGTGTGGTGGCGTTATGGCAGCCCGGCTGCTGCTTGGATGCGAGCTTGGC  
CTTGGGCGGGTGTGGGGGCACAGCTGTCTGCCAGGCACTCTCATACCCAGAGGCCTTGTCTATCCTCCCTTGC  
CCCAGGCCAGGTAGCAAGAGAGCAGCGCCAGGCCTGCTGGCATCAGGTCTGGGCAAGTAGCAGGACTAGGCATG  
TCAGAGGACCCAGGGTGGTTAGAGGAAAAGACTCCTCCTGGGGGCTGGCTCCAGGGTGGAGGAAGGTGACTGT  
GTGTGTGTGTGTGTGCGCGCGCAGCGCGAGTGTGTGTATGGCCCAGGCAGCCTCAAGGCCCTCGGAGCTGGC  
TGTGCTGCTTCTGTGTACCACTTCTGTGGGCATGGCCGCTTCTAGAGCCTCGACACCCCCCAACCCCGCACC  
AAGCAGACAAAGTCAATAAAAGAGCTGTCTGACTGC

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**FIGURE 241**

MPPAAPARLALALGLGLWLGLALAGGPGRGCGPCEPPCLCGPAPGAACRVNCSGRGLRTLGPALRIPADATALDVS  
HNLLRALDVGLLANLSALAELD ISNNKISTLEEGIFANLFNLSEINLSGNPFECDCGLAWLPRWAEQQVRVQVQ  
EAATCAGPGSLAGQPLLGIPLLDSCGGEYVACL PDNSSGTVA AVSF SAAHEGLLQPEACSAFCFSTGQGLAALS  
EQGWCLCGAAQPSSASFACLSLCSGPPPPAPT CRGPTLLQHVF PASPGATLVGPHGPLASGQLAAFHIAAPLPV  
TATRWDFGDGSAEVDAAAGPAASHRYVLPGRYHVTAVLALGAGSALLGTDVQVEAAPAALELVCPSSVQSDESLDL  
SIQNRGGSGLEAAYSIVALGEEP PARAVHPLCPSDTEIFPGNGHCYRLVVEKAAWLQAQEQCQAWAGAALAMVDS  
AVQRFVLSRVTRSLDVWIGFSTVQGVVGPAPQGEAFSLESCQNWLPGEPHPATAEHCVRLGPTGWCNTDLC SAP  
HSYVCELQPGGPVQDAENLLVGAPSGDLQGPLTPLAQDGLSAPHEPVEVMVFPGLRLSREAFLT TAEFGTQELR  
RPAQLRLQVYRLLSTAGTPENGSEPE SRSPDNRTQLAPACMPGGRWC PGANICLP LDASCHPQACANGCTSGPGL  
PGAPYALWREFLF SVAAGPPAQYSVT LHGQDVLMLPGDLVGLQHDAGPGALLHCS PAPGHPGPQAPYLSANASSW  
LPHLPAQLEGTWACPACALRLLAATEQLTVLLGLRPNPGLRMPGRYEVRAEVGNGVSRHNLSCSFDVVS P VAGLR  
VIYPAPRDGRLYVPTNGSALVLQVD SGANATATARWPGGSVSARFENVCPALVATFVPGCPWETNDTLEFSVVALP  
WLSEGEHVVDVVVENSASRANLSLRVTAE E P I CGLRATPSPEARVLQGV LVRYSPVVEAGSDMVFRWTINDKQSL  
TFQNVVFNVIYQSAAVFKLSLTASNHVS NVTVNYNVTVERMNMQLQVSTVPAVLSPNATLALTAGVLVD SAVE  
VAF LWNFGDGEQALHQFQPPYNESFPVPDPSVAQVLVEHNMHTYAAPGEYLLTVLASNAFENLTQQVPVSVRAS  
LPSVAVGVSDGVLVAGRPVTFYPHLPSPGGVLYTWDFGDGSPVLTQSQPAANHTYASRGTYHVRLEVNNTVSGA  
AAQADVRVFEELRGLSVDMSLAVEQGAPVVVSAAVQTGDNITWTFDMGDGTVLSGPEATVEHVYLR AQNCTVTVG  
AASPAGHLARSLHVLVFLVLEVL RVEPAACIPTQPDARLTAYVTGNPAHYLFDWTFGDGSSNTTVRGCTVTHNFT  
RSGTFPLALVLSSRVNRAHYFTSICVEPEVGNVTLQPERQFVQLGDEAWLVACAWPPFPYRYTWDFGTEEAAPTR  
ARGPEVTFIYRDPGSYLVTVTASN NISAANDSALVEVQEPVLVTSIKVNGSLGLELQQP YLFSAVGRGRPASYLW  
DLGDGGWLEGPEVTHAYNSTGDFTVRVAGWNEVSRSEAWLNVTVKRRVRGLV VNASRTV VPLNGSVSFSSTSLEAG  
SDVRYSWVLCDRCTPIPGGPTISYTFRSVGT FNIIVTAENEVGS AQDSIFVYVLQLIEGLQVVGGRYFPTNHTV  
QLQAVVRDGTNVSYSWTAWRDRGPALAGSGKGFSLT VLEAGTYHVQLRATNMLGSAWADCTMD FVEPVGWLMTA  
SPNPAAVNTSVTL SAE LAGGSGVVYTW SLEEGLSWETSEPFTHSFPTPGLHLVTMTAGNPLGSANATVEVDVQV  
PVSGLSIRASEPGGSFVAAGSSVPFWGQLATGTNVSWC WAVPGGSSKRGPHTMVF PDAGTFSIRLNASNAVSWV  
SATYNLTAE E P I VGLVLWASSKV VAPGQLVHFQILLAAAGSAVTFRLQVGGANPEVLP GPRFSHSFPRVGDHVVS  
RGKNHVSWAQAQVRIVVLEAVSGLQMPNCCEPGIATGTERNFTARVQRGS

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**FIGURE 242**

ACTTACTGCGGGACGGCCTTGGAGAGTACTCGGGTTCGTGAACTTCCCGGAGGCGCAATGAGCTGCATTAAACCTG  
CCCCTGTGCTGCCCCGGCTCCCCAGCAAGACCCGGGGGCAGATCCAGGTGATTCTCGGGCCGATGTTCTCAGGA  
AAAAGCACAGAGTTGATGAGACGCGTCCGTGCTTCCAGATTGCTCAGTACAAGTGCCTGGTGATCAAGTATGCC  
AAAGACACTCGCTACAGCAGCAGCTTCTGCACACATGACCGGAACACCATGGAGGCGCTGCCCGCTGCCTGCTC  
CGAGACGTGGCCCAGGAGGCCCTGGGCGTGGCTGTCATAGGCATCGACGAGGGGCAGTTTTTCCCTGACATCATG  
GAGTTCTGCGAGGCCATGGCCAACGCCGGAAGACCGTAATTGTGGCTGCACTGGATGGGACCTTCCAGAGGAAG  
CCATTTGGGGCCATCCTGAACCTGGTGCCGCTGGCCGAGAGCGTGGTGAAGCTGACGGCGGTGTGCATGGAGTGC  
TTCCGGGAAGCCGCTATACCAAGAGGCTCGGCACAGAGAAGGAGGTGAGGTGATTGGGGGAGCAGACAAGTAC  
CACTCCGTGTGTCGGCTCTGCTACTTCAAGAAGGCCTCAGGCCAGCCTGCCGGGCCGGACAACAAAGAGAACTGC  
CCAGTGCCAGGAAAGCCAGGGGAAGCCGTGGCTGCCAGGAAGCTCTTTGCCCCACAGCAGATTCTGCAATGCAGC  
CCTGCCAACTGAGGGACCTGCAAGGGCCGCCGCTCCCTTCCTGCCACTGCCGCCTACTGGACGCTGCCCTGCAT  
GCTGCCCAGCCACTCCAGGAGGAAGTCGGGAGGCGTGGAGGGTGACCACACCTTGGCCTTCTGGGAACTCTCCTT  
TGTGTGGCTGCCCCACCTGCCGCATGCTCCCTCCTCTCCTACCCACTGGTCTGCTTAAAGCTTCCCTCTCAGCTG  
CTGGGACGATCGCCCAGGCTGGAGCTGGCCCCGCTTGGTGGCCTGGGATCTGGCACACTCCCTCTCCTTGGGGTG  
AGGGACAGAGCCCCACGCTGTTGACATCAGCCTGCTTCTTCCCCTCTGCGGCTTTCACTGCTGAGTTTCTGTTCT  
CCCTGGGAAGCCTGTGCCAGCACCTTTGAGCCTTGGCCCACACTGAGGCTTAGGCCTCTCTGCCTGGGATGGGCT  
CCCACCTTCCCTGAGGATGGCCTGGATTACGCCCTCTTGTTCCTTTTGGGCTCAAAGCCCTTCCCTACCTCTG  
GTGATGGTTTCCACAGGAACAACAGCATCTTTCACCAAGATGGGTGGCACCAACCTTGCTGGGACTTGGATCCCA  
GGGGCTTATCTCTTCAAGTGTGGAGAGGGCAGGGTCCACGCCCTCTGCTGTAGCTTATGAAATTAATAATT

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**FIGURE 243**

MSCINLPTVLPGPSKTRGQIQVILGPMFSGKSTELMRRVRRFQIAQYKCLVIKYAKDTRYSSSFCTHDRNTMEA  
LPACLLRDVAQEALGVAVIGIDEGQFFPDIMEFCEAMANAGKTVIVAALDGTFRKPFGAILNLVPLAESVVKLT  
AVCMECFREAAAYTKRLGTEKEVEVIGGADKYHSVCRLCYFKKASGQPAGPDNKENCVPVPGKPGEAVAARKLFAPQ  
QILQCSPAN

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**FIGURE 244A**

CCCAGTTGTCTGCGGGCTGCGGGGAGCTAAGTCCCCAGATTGGAGGAGGCTGGCTCTGGTCTTCGATGCACAGGA  
GTGGCCGTTATGGAACGCAGCAGCAGCGTGCAGGGTCAAAGACAGCCGGCCCCCATGTCAGTGGTCTAGGATGG  
CCAGTGAAGGCACCAACATCCCAAGTCTGTGGTGCAGGATTGACAAGCAGTTTCTGATTTGCAGTATATGCC  
TGGAACGGTACAAGAATCCCAAGTTCTCCCTGTCTGCACACTTTCTGCGAGAGGTGCCTGCAGAACTACATTC  
CTGCCCACAGTTTAACCCCTCTCCTGCCCAGTGTGCCGCCAGACCTCCATCCTGCCCAGAAAGGGGTGGCCGCGC  
TCCAGAACAATTTCTTCATCACAAACCTGATGGACGTGCTGCAGCGAACTCCAGGCAGCAACGCTGAGGAGTCTT  
CCATCCTGGAGACAGTCACTGCTGTGGCTGCGGGAAAGCCTCTCTCTTGCCCAAACACGATGGGAATGTGATGG  
AATTTTACTGCCAGTCTGTGAGACTGCCATGTGTGCGGAGTGCACGGAGGGGGAGCACGCAGAGCACCCCCACAG  
TTCCACTCAAGGATGTGGTGGAAACAGCACAAAGGCCTCGCTCCAGGTCCAGCTGGATGCTGTCAACAAAAGGCTCC  
CAGAAATAGATTCTGCTCTTCAGTTCATCTCTGAAATCATTATCAGTTAACCAACCAAAAGGCCAGCATCGTGG  
ATGACATTCATTCCACCTTTGATGAGCTCCAGAAGACTTTAAATGTGCGCAAGAGTGTGCTGCTTATGGAATTGG  
AGGTCAACTATGGCCTCAAACACAAAGTCTCCAGTGCAGCTGGATACTCTGCTCCAGGGGCAGGAGAGCATT  
AGAGCTGCAGCAACTTCACAGCGCAGGCCCTCAACCATGGCACGGAGACCGAGGTCTACTGGTGAAGAAGCAGA  
TGAGCGAGAAGCTGAACGAGCTGGCCGACCAGGACTTCCCTTGACCCGCGGGAGAACGACCAGCTGGATTTC  
TCGTGGAAACCGAGGGGCTGAAGAAGTCCATCCACAACCTCGGGACGATCTTAACCACCAACGCCGTTGCCTCAG  
AGACAGTGGCCACGGGCGAGGGGCTGCGGCAGACCATCATCGGGCAGCCCATGTCCGTACCATCACCACCAAGG  
ACAAAGACGGTGAGCTGTGCAAAACCGGCAACGCCTACCTCACCGCCGAAGTGAACCCCCGACGGGAGCGTGG  
CAGACGGGGAGATCCTGGACAACAAGAACGGCACCTATGAGTTTTTGTACACTGTCCAGAAGGAAGGGGACTTTA  
CCCTGTCTCTGAGACTCTATGACCAGCACATCCGAGGCAGCCCGTTTAAGCTGAAAGTGATCCGATCCGCTGATG  
TGTCTCCACACAGAAGGCGTGAAGAGGCGCGTTAAGTCCCCGGGGAGCGGCCACGTCAAGCAGAAAGCTGTGA  
AAAGACCCGCAAGCATGTACAGCACTGGAACGAAAAAGAGAATCCCATCGAAGACGATTTGATCTTTTCAGTGG  
GTACCAAAGGAAGAAATAAAGGAGAGTTTACAAATCTTCAGGGGGTAGCTGCATCTACAAATGGAAAGATATTAA  
TTGCAGACAGTAACAACCAATGTGTGCAGATATTTTCCAATGATGGCCAGTTCAAAGTCGTTTTGGCATAACGGG  
GACGCTCTCCGGGGCAGCTGCAGCGGCCACAGGAGTGGCTGTACATCCAGTGGGGACATAATCATTGCCGATT  
ATGATAATAAATGGGTGAGCATTTTTCTCCTCCGATGGGAAATTTAAGACAAAATTTGGATCAGGAAAGCTGATGG  
GACCCAAAGGAGTTTCTGTGGACCGCAATGGGCACATTATTGTTGTGGACAACAAGGCGTGTGCGTGTATTATCT  
TCCAGCCAAACGGGAAAATAGTCACCAGGTTTGGTAGCCGAGGAAATGGGGACAGGCAGTTTGCAGGTCCCCATT  
TTGCAGCTGTAAATAGCAATAATGAGATTATTATTACAGATTTCCATAATCATTCTGTCAAGGTGTTTAAATCAGG  
AAGGAGAATTCATGTTGAAGTTTGGCTCAAATGGAGAAGGAAATGGGCAGTTTAAATGCTCCAACAGGTGTAGCAG  
TGGATTCAAATGGAAACATCATTGTGGCCGACTGGGGAAACAGCAGGATCCAGGTTTTTGTATGGGAGTGGATCAT  
TTTTGTCTACATTAACACATCTGCTGACCCACTCTATGGCCCCCAAGGCCTGGCCCTAACTTCAGATGGTTCATG  
TTGTGGTTGCAGACTCTGGAAATCACTGTTTTCAAAGTCTATCGATACTTACAGTAATGGTGGGCAGGTGGATAACC  
CGCTTCCATGGTCTTGCACTATAAATCTGGAATGGATTTCTCAATGCGGGACCAGATTATGACTAGAGTTTTTATG  
CCAGAAGGAATCATTGGTGAACCTTTCCAAGGTTATTTCTGAATGTAACAATTTCTTAAAAATGACTTATCCAAT  
TTCTGTATTTACCTTTAGGGTTAAAAAAACTCTTCTACTGAATCTATAAAAACTGCAGTTTTTACATCTGTGAA  
CTATGGCTTAAGGGACAGGATTTATGTAGCTAAACTAATTTTGCAAAATCAAACAGACACTTAAAAAACTAGCAT  
ATGTAAAGGTATTCGTTAATCCTGTGAATGGTAGCTTTTGCACAGAACTTCCAAAAGCAAAACAAAAACAAATC  
TATTGTAGTTATATACTTCATTTAACCTAGGTACACAAGACCCAGGGAATCTTCTAACCTCACTTTTACAGTAGGT  
ATTACTCTTGACATTTTTTTGGTTATCAACAATAAATAAATTACTTTGGAAAAAGTAAGGCTGTCTTGCA  
AAATGATCCCAGCTCTGATTAGCAGCCCTCTGGAGTTCAGAACTTAAGTATCAGTGCAAATTTCTCAACCTTTCT  
GGGTTAGACAAAGATCCTTTTTTGTGTGTTCTTTTACCACCCCTTTGGCTCACCTTGTATCAGCAAACAAAGTA  
CTTCTTCAGGGAAACCTGAAATTTCTAATGCCTTGAAAAGCATATTACAAAAGTAATGCTACCTTTTGGGAAACA  
AACTGCCCCGTTAACTCCAGATCATTGCACTGGAATGTAATCAAGAAAGTTAGTCATGTTTTATGTACCATGTTT  
TCACACGTGTCTCTTCTCTTCGACTTCCTGAAAGCGAAAGCTTTACCTCCTGCAAATGTCAGCACATGTAGTAGG  
ACACCAGTATCCTAGGACAGAGAGCCATAAGTAGCCCTTTGGAGGACTGATGGTGTCAACCAAGGCATGTGATT  
GATTAATGATTCCCCCTTAGAAAGCAAGTGTTACCAAAGTTGTGTTATCTTGAAAGCATTACAGGTAAGGGCATG  
TTATGGTTATTTATCATTGTTTAAATGAATAGTAGAGGTGTCAAGGGACTATGTATACATGATTAGGGTAAGATAG  
AATGTATTATATATATATATATATATACACACACATATATATAGCTGAATCTTTGGTGTATTGAAATAGGCAG

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**FIGURE 244B**

CACTCTGAAAGACAGAAGCTTCGTCCAGCCACTCTTCAGCACATTCCCTTTACTAAGCAGTTTAAAGCCGTCCTAG  
TGGAGCAAGCCCTAAAGCAGATTTAATTTTTGCCATTTTCCAAGAATGACGGTGGTGGCTTTTAGTCAGAAAATG  
GCCTTCTGTGCTTTCAAAAAAAAAAACAAAAAAAAACCACACACACATAAAAAACCCAACAGGTCAAAATAAA  
AGTTGAACTTGAGTTACATTTAATTTAAATATAAATGCATTTTGAGAAATGTTAAGAACAATTTAGTCAATCGTT  
CATCTGTCATTGGTACTGTAAATAAGCTGTGGTCTATTTCCACTGTTTAATTTTCTACTCAGTTCTACCAAATA  
GGATGTCATGTTTGACATTTTTGATAGTGACTTTGGGGTCTTCTTCACTGAAAGCACCTTAGAACTGTACTATAA  
GAAAACATTTCCCCTATGTATAATTATATGAATGTGATGTTTATTGCTTATTAATTTATAATTCAGTCATTCTCT  
ATATAGGACTTCTTAAAATTTAGAAGGGAAATCTAGCTACTTCAAATTGTCTGTTAAATTTATTATGCCCAAATC  
AACCTCTGAAAAAAGGTTTTTCCAGGAAGATTTACATTTAGGTTTAATATTTTTTTAGTTAGGTAGAGTTTAAA  
AAATACTTGAGCCTGTCCGTGATAAAGCTATAAAATTCAATACTTTTTAGAATGTTAAATGAAGACACTGTTTC  
CTAACATCAGTGAGATACATCTTTGAATTTAAACATTCATATTTACTGAGTACCTACTAGGTACCAAGTACTCTT  
TTAGGCACTGGAAATACAGTGATGGACAAAACAGGTAAAAAATCGCTGCCCCCTCAGAGCTGACATTCTGGGGTG  
GGAATTTTCAATTTTGCCACGTACTAACGTTCTGCACAAAAGACAGGCTAGACTCTTGTCTAGATTGTTTAAAGAA  
ACTTTTCAAATTGGTTACATTAATTTTAGTTTATTTTCAACAAGTAAAAATGGCTTTTTTATTTAGATTCTTCTGT  
CCCAGGCTGTTGATCTTAAACTAGTTGATTTAAAGAGTTTTTTTTGCACAACATTTCAATTATATTTGTGAACCT  
AGAAATTAACCTACAATCTAACAGCCATCATATCATATCCTATCAGGCTAGATATCTCAATAGTAGACTGAATA  
CAAAGCTAATTTTTTTTTTACATGTCAATATTGGCACAAACTGGAATGAAAGAATAGTTTGATTTCAGACCTGCTCCA  
CTATGTGTTGCTAAAACACATGCTATGAGCACTCGAGGAAAACACTATATTTTTTCCAAAAATATGTGATTATAT  
ATGTTAAAGTATAGATAACATTTACACTTGGATACATATGTGCATTTACTGTATTTCTTGGTAAGCATATTTTT  
GGGGGAAAGTGCTGCTGATATGATACAAGTAGACAAAATTTAAATGAAATTTTGTACATTCTATGGAAAAATGGT  
TTCTGGTAAACTGAGAAGGATATTAAAATAAGTGGCTTTTTTCTGGGTACCATTATTGTTTGTATTCTCTTTGT  
CAAGTGATAGAACCTGTCATACATTCATGATAAGTAGCACTGAAAAATTACTCATTCAAATTTCCCCTGGGCAC  
GTAAGGCAAAATATTGCCGGTTGGGATTTCAAGGTCAGTGACGACGCATTTCCCTCCAGTACAGACCCCCAGCC  
CCCCCTGCTGGACATGGGGAGGCAGAGAGTCACTTGACCATCCAGAAATACATGACTACAAGTCTTTATGACTG  
TTTGCCATTTTTTTTAAATGGTACTTAGTATTTTTGATCAAACCTTTAGTCTCCAGAACTAAACAAGTCCCTAAGTTT  
CCTTATTTTAAATTTACTGTGACTAGATTTGAAGCAAATAAATACTCCAGATCCATGCAGCTAGAACACACTTGCT  
TCCACTACTAAATATACAGGGTATGTCCTAACATGGAGTTAACTGGAATAGCAGTACACTAGCAAGTATCTGTGA  
ATCCTTAGCACTGACGGGTTAACAGAAATGCTTTGGTAATACCTACTTAGTTAATTGGAGGAAGTAGTAAATAAA  
CATTAGGTAATCTGCAGATTACITCAAATGGGAAAAATCTTTTTGTAGACTCTATAGTACCCTCTCTATTCACTA  
GCTTCTGAAAAGGGAGGAGTATTTTTAGTTTGACAATTTAATAATTTAAAAACAAGACATCTCCAGGTAGGAAAA  
AATGAAAGCTATTTTCATGCAAACATTATCTAATTTAGCTTAAAAGTGAAAGTGGTAATACTGTTGGTTTCTGTAA  
ATGTTGCAGGGTTTTTAACTTTATAATTACTTTAATATTTTTGATAACTAGAAATCTAGTATTGCCATAAAGGAA  
ACTAAGTGCCCATCAAAGATTTGTTTGGTATAAATAAAGAATTATTTGTTTTGTTTTCAATGACAGTAAGCTACA  
AATCATGATGCTTAAAACTTTCTAAAGATGAATTGTGTGGCAGTGATTGGTCTGTTTGTGGAGAATGTATGAAA  
GCTATTAATATTCTAGAATAGATTAATAAATTGGCTATGTTGTTCCAATGAATGTACAGCACTTCCATTAACCTT  
TGAAAGCAACACAGCCTTAAACTCAATGCTTTTGCTTTATGACATGGGAATGTTCTGTCTCATCAATGGAGTGTATT  
CTTGTAATAGAATTCTTTATATCGTTCTCAATCTATAGACTTTCAAGCCTATGTATGAATATGAAGGGGTTTTT  
TTTTTTTTGCTTTGTTTTCTTTTTAGATTTTGTACATTCCATCTTTATAGGTCTGTTTCATATGTTTTATGTATA  
GAACACTAAGTCTTGCACTCTCTGACATTGATACTGATATATTCTCGTCATTTGTTCTTTTATGAATCAAAATGT  
TGACTGCCTATTTAAAGAAAAGAATGAACGCTGTGCATCAAAGTGTTTGTATGTTTCGTAGCTACATACGTACCAC  
AGTATTTTGGATGCTTTAGTCTACAATGAACTTTCAATTAATTCTGTCTTGAAACATAGGAGAAACAGGATTCA  
TGTGTATCTCTTTACCATGCACAAAATCTCAAATCATTATAATAAAGCTTGTTTTTCTCC



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**FIGURE 245**

MASEG TNIPSPVVRQIDKQFLICSICLERYKNPKVLPCLHTFCERCLQNYIPAHSLTLSCPVC RQTSILPEKGVA  
ALQNNFFITNLMDVLQRTPGSNAEESSILETVTAVAAGKPLSCPNDGNVMEFYCQSCETAMCRECTEGEHA EHP  
TVPLKDVVEQHKASLQVQLDAVNKRLPEIDSALQFISEIIHQLTNQKASIVDDIHSTFDELQKTLNVRKSVLLME  
LEVNYGLKHKVLQSQLDTLLQGQESIKSCSNFTAQALNHGTETEVLLVKKQMSEKLNELADQDFPLHPRENDQLD  
FIVETEG LKKSIIHNLG TILTTNAVASETVATGEGLRQTIIGQPMSVTITTTKDKDGELCKTG NAYLTAELSTPDGS  
VADGEILDNKNGTYEFLYTVQKEGDFTL SLRLYDQHIRGSPFKLKVIRSADVSP TTEGVKRRVKSPGSGHV KQKA  
VKRPASMYSTGKRKENPIEDDLIFRVG TKGRNKGEFTNLQGVAASTNGKILIADSNNQCVQIF SNDGQFKSRFGI  
RGRSPGQLQRPTGVAVHPSGDII IADYDNKWVSIFSSDGKFKTKIGSGKLMGPKGVSVDRNGHII VVDNKACCVF  
IFQPNGKIVTRFGSRGNDRQFAGPHFAAVNSNNEIIITDFHNH SVKVFNQEGEFMLKF GSNNEGNGQFNAPTGV  
AVDSNGNIIVADWGN SRIQVFDGSGSFLSYINTSADPLYGPQGLALTSDGHVVVADSGNHCFKVYRYLQ

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**FIGURE 246**

ACCGCCGACGCAGACCCCTCTCTGCACGCCAGCCCGCCCGCACCCACCATGGCCACAGTTCAGCAGCTGGAAGGA  
AGATGGCGCCTGGTGGACAGCAAAGGCTTTGATGAATACATGAAGGAGCTAGGAGTGGGAATAGCTTTGCGAAAA  
ATGGGCGCAATGGCCAAGCCAGATTGTATCATCACTTGTGATGGTAAAAACCTCACCATAAAAACTGAGAGCACT  
TTGAAAACAACACAGTTTTTCTTGTACCCTGGGAGAGAAGTTTGAAGAAACCACAGCTGATGGCAGAAAACTCAG  
ACTGTCTGCAACTTTACAGATGGTGCATTGGTTCAGCATCAGGAGTGGGATGGGAAGGAAAGCACAATAACAAGA  
AAATTGAAAGATGGGAAATTAGTGGTGGAGTGTGTCATGAACAATGTCACCTGTACTCGGATCTATGAAAAAGTA  
GAATAAAAAATTCATCATCACTTTGGACAGGAGTTAATTAAGAGAATGACCAAGCTCAGTTCAATGAGCAAATCT  
CCATACTGTTTCTTTCTTTTTTTTTTTCATTACTGTGTTCAATTATCTTTATCATAAACATTTTACATGCAGCTAT  
TTCAAAGTGTGTTGGATTAAATTAGGATCATCCCTTTGGTTAATAAATAAATGTGTTTGTGCT

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**FIGURE 247**

MATVQQLEGRWRLVDSKGFDEYMKELGVGIALRKMGAMAKPDCIITCDGKNLTIKTESTLKTTQFSC TLGEKFEE  
TTADGRKTQTVCNFTDGALVQHQEWDGKESTITRKLKDGKLVVECMNNVTCTRIYEKVE

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**FIGURE 248**

CGAACTCTGAAAAGGCGGGGCAGCGGGCCTGCAGCTCCTGGAGTTTCAGGGAGACCCGGAAATCTCACCTGCCCT  
CTTCTTGTGTTGTGTTTGTACAGCCTTGCCCCCTCTTGCTCGCCTTGAAAATGGAAGAGATGCTCGCAGGCTGCT  
TTCTGCTGATCCTCGGACAGATCGTCCTCCTCCCTGCCGAGGCCAGGGAGCGGTACGTGGGAGGTCCATCTCTA  
GGGGCAGACACGCTCGGACCCACCCGCAGACGGCCCTTCTGGAGAGTTCTGTGAGAACAAGCGGGCAGACCTGG  
TTTTTCATCATTGACAGCTCTCGCAGTGTCAACACCCATGACTATGCAAAGGTCAAGGAGTTCATCGTGGACATCT  
TGCAATTCTTGGACATTGGTCCTGATGTCAACCCGAGTGGGCCTGCTCCAATATGGCAGCACTGTCAAGAATGAGT  
TCTCCCTCAAGACCTTCAAGAGGAAGTCCGAGGTGGAGCGTGTGTCAAGAGGATGCGGCATCTGTCCACGGGCA  
CCATGACCGGGCTGGCCATCCAGTATGCCCTGAACATCGCATTCTCAGAAGCAGAGGGGGCCCGCCCCCTGAGGG  
AGAATGTGCCACGGGTCATAATGATCGTGACAGATGGGAGACCTCAGGACTCCGTGGCCGAGGTGGCTGCTAAGG  
CACGGGACACGGGCATCCTAATCTTTGCCATTGGTGTGGGCCAGGTAGACTTCAACACCTTGAAGTCCATTGGGA  
GTGAGCCCCATGAGGACCATGTCTTCTTGTGGCCAATTTAGCCAGATTGAGACGCTGACCTCCGTGTTCCAGA  
AGAAGTTGTGCACGGCCCATGTGCAGCACCTTGGAGCATAACTGTGCCCACTTCTGCATCAACATCCCTGGCT  
CATACTGTGCAGGTGCAAACAAGGCTACATTCTCAACTCGGATCAGACGACTTGAGAATCCAGGATCTGTGTG  
CCATGGAGGACCACAACCTGTGAGCAGCTCTGTGTGAATGTGCCGGGCTCCTTCGTCTGCCAGTGCTACAGTGGCT  
ACGCCCTGGCTGAGGATGGGAAGAGGTGTGTGGCTGTGGACTACTGTGCCTCAGAAAACCACGGATGTGAACATG  
AGTGTGTAAATGCTGATGGCTCCTACCTTTGCCAGTGCCATGAAGGATTTGCTCTTAACCCAGATGAAAAACGT  
GCACAAAGATAGACTACTGTGCCTCATCTAATCACGGATGTCAGCACGAGTGTGTTAACACAGATGATTCCTATT  
CCTGCCACTGCCTGAAAGGCTTTACCCTGAATCCAGATAAGAAAACCTGCAGAAGGATCAACTACTGTGCACCTGA  
ACAAACCGGGCTGTGAGCATGAGTGCCTCAACATGGAGGAGAGCTACTACTGCCGCTGCCACCGTGGCTACACTC  
TGGACCCCAATGGCAAACCTGCAGCCGAGTGGACCACTGTGCACAGCAGGACCATGGCTGTGAGCAGCTGTGTG  
TGAACACGGAGGATTCTTTCGTCTGCCAGTGCTCAGAAGGCTTCTCATCAACGAGGACCTCAAGACCTGCTCCC  
GGGTGGATTACTGCCTGCTGAGTGACCATGGTTGTGAATACTCCTGTGTCAACATGGACAGATCCTTTGCCTGTC  
AGTGTCTTGAGGGACACGTGCTCCGCAGCGATGGGAAGACGTGTGCAAAATTGGACTCTTGTGCTCTGGGGGACC  
ACGGTTGTGAACATTCTGTGTGAAGCAGTGAAGATTCGTTTGTGTGCCAGTGCTTTGAAGGTTATATACTCCGTG  
AAGATGGAAAAACCTGCAGAAGGAAAGATGTCTGCCAAGCTATAGACCATGGCTGTGAACACATTTGTGTGAACA  
GTGATGACTCATACACGTGCGAGTGCTTGGAGGGATTCCGGCTCGCTGAGGATGGGAAACGCTGCCGAAGGAAGG  
ATGTCTGCAAATCAACCCACCATGGCTGCGAACACATTTGTGTGAATAATGGGAATTCCTACATCTGCAAATGCT  
CAGAGGGATTGTTCTAGCTGAGGACGGAAGACGGTGCAAGAAATGCACTGAAGGCCCAATTGACCTGGTCTTTG  
TGATCGATGGATCCAAGAGTCTTGGAGAAGAGAATTTTGAGGTCGTGAAGCAGTTTGTCACTGGAATTATAGATT  
CCTTGACAATTTCCCCCAAAGCCGCTCGAGTGGGGCTGCTCCAGTATCCACACAGGTCCACACAGAGTTCACTC  
TGAGAACTTCAACTCAGCCAAAGACATGAAAAAGCCGTGGCCACATGAAATACATGGGAAAGGGCTCTATGA  
CTGGGCTGGCCCTGAAACACATGTTTGAGAGAAGTTTTACCCAAGGAGAAGGGGCCAGGCCTTTTCCACAAGGG  
TGCCAGAGCAGCCATTGTGTTACCGACGGACGGGCTCAGGATGACGTCTCCGAGTGGGCCAGTAAAGCCAAGG  
CCAATGGTATCACTATGTATGCTGTTGGGGTAGGAAAAGCCATTGAGGAGGAACACAAGAGATTGCCTCTGAGC  
CCACAAACAAGCATCTCTTCTATGCCGAAGACTTCAGCACAATGGATGAGATAAGTGAAAACTCAAGAAAGGCA  
TCTGTGAAGCTCTAGAAGACTCCGATGGAAGACAGGACTCTCCAGCAGGGGAACCTGCCAAAAACGGTCCAACAGC  
CAACAGAATCTGAGCCAGTCACCATAAATATCCAAGACCTACTTTCCTGTTCTAATTTTGAGTGCAACACAGAT  
ATCTGTTTGAAGAAGACAATCTTTACGGTCTACACAAAAGCTTTCCCATTCACAAAACCTTCAGGAAGCCCTT  
TGGAAGAAAAACACGATCAATGCAAATGTGAAAACCTTATAATGTTCCAGAACCTTGCAAACGAAGAAGTAAGAA  
AATTAACACAGCGCTTAGAAGAAATGACACAGAGAATGGAAGCCCTGGAAAAATCGCCTGAGATACAGATGAAGAT  
TAGAAATCGCGACACATTTGTAGTCATTGTATCACGGATTACAATGAACGCAGTGCAGAGCCCCAAAGCTCAGGC  
TATTGTTAAATCAATAATGTTGTGAAGTAAAACAATCAGTACTGAGAAACCTGGTTTGGCCACAGAACAAGACAA  
GAAGTATACACTAATCTGTATAAATTTATCTAGGAAAAAATCCTTCAGAATTCATAAGATGAATTTACCAGGTGA  
GAATGAATAAGCTATGCAAGGTATTTTGTAAATATACTGTGGACACAACCTTGCTTCTGCCATCATCCTGCCTTAGTG  
TGCAATCTCATTTGACTATACGATAAAGTTTGCACAGTCTTACTTCTGTAGAACACTGGCCATAGGAAATGCTGT  
TTTTTTGTACTGGACTTTACCTTGATATATGTATATGGATGTATGCATAAAATCATAGGACATATGTACTTGTGG  
ACAAAGTTGGATTTTTTATACAATATTAATTCACCACTTCAGAG

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**FIGURE 249**

MEKMLAGCFLLILGQIVLLPAEARERSRGRSISRGRHARTHPTALLESSCENKRADLVFIIDSSRSVNTHDYAK  
VKEFIVDILQFLDIGPDVTRVGLLQYGSTVKNEFSLKTFKRKSEVERAVKMRHLSTGTMTGLAIQYALNIAFSE  
AEGARPLRENVPRVIMIVTDGRPDQSVAEVAAKARDTGILIFAIGVGQVDFNTLKSIGSEPHEDHVFLVANFSQI  
ETLTSVFQKKLCTAHMCSTLEHNCAHFCINIPGSYVCRCKQGYILNSDQTTCRIQDLCAMEDHNCEQLCVNVPGS  
FVCQCYSGYALAEDGKRCVAVDYCASENHGCEHECVNADGSYLCQCHEGFALNPDEKTCTKIDYCASSNHGCQHE  
CVNTDDSYSCHCLKGFTLNPDKKTCRRINYCALNKPGEHECVNMEESYYCRCHRGYTLDPNGKTC SRVDHCAQQ  
DHGCEQLCLNTEDSFVCQCSEGF LINEDLKTC SRVDYCLLSDHGCEYSCVNMDRSFACQCPEGHVLRSDGKTC AK  
LDSCALGDHGCEHSCVSSSEDSFVCQCFEGYILREDGKTCRRKDVCQAIDHGCEHICVNSDDSYTCECLEGFRLAE  
DGKRCRRKDVCKSTHHGCEHICVNNGNSYICKCSEGFVLAEDGRRCKKCTEGPIDLVFVIDGSKSLGEENFEVVK  
QFVTGIIDSLTISPKAARVGLLQYSTQVHTEFTLRNFNSAKDMKKAVAHMKYMGKGSMTGLALKHMFERSFTQGE  
GARPFSTRVPRAAIVFTDGRAQDDVSEWASKAKANGITMYAVGVGKAIEEELQEIASEPTNKHLFYAEDFSTMDE  
ISEKLKKGICEALEDS DGRQDSPAGELPKTVQOPTSEPTINIQDLLSCSNFAVQHRYLFEEDNLLRSTQKLSH  
STKPSGSPLEEKHDQCKCENLIMFQNLANEEVRKLTQRLEEMTQRMEALENRLRYR

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**FIGURE 250**

TGCCCCAAGCAGGGGGACAGCAAGGGACGCTCAGGCGGGGACC**ATG**SCGGACGGCGGGCTCGGAGCGGGCTGACGG  
GCGCATCGTCAAGATGGAGGTGGACTACAGCGCCACGGTGGATCAGCGCCTACCCGAGTGTGCGAAGCTAGCCAA  
GGAAGGAAGACTTCAAGAAGTCATTGAAACCCTTCTCTCTCTGGAAAAAGCAGACTCGTACTGCTTCCGATATGGT  
ATCGACATCCCGTATCTTAGTTGCAGTAGTGAAGATGTGCTATGAGGCTAAAAGAATGGGATTTACTTAATGAAAA  
TATTATGCTTTTGTCCAAAAGGCGGAGTCAGTTAAAAACAAGCTGTTGCCAAAAATGGTTCAACAGTGCTGTACTTA  
TGTTGAGGAAATCACAGACCTTCCTATCAAACCTTCGATTAATTGATACTCTACGAATGGTTACCGAAGGCAAGAT  
TTATGTTGAAATTGAGCGTGC GCGACTGACTAAAACATTAGCAACTATAAAAAGAACAAAATGGTGATGTGAAAGA  
GGCAGCCTCCATTTTACAGGAGTTACAGGTGGAAACCTACGGGTCAATGGAAAAGAAAGAGCGAGTGGAATTTAT  
TTTGGAGCAAATGAGGCTCTGCCTAGCTGTGAAGGATTACATTGCAACACAAATCATCAGCAAGAAAATTAACAC  
CAAATTTTTCCAGGAAGAAAATACAGAGAAATTAAAGTTGAAGTACTATAATTTAATGATTAGCTGGATCAACA  
TGAGGGATCCTATTTGTCTATTTGTAAGCACTACAGAGCAATATATGATACTCCCTGTATACAGGCAGAAAGTGA  
AAAATGGCAGCAGGCTCTGAAGAGTGTGTACTCTATGTTATCCTGGCTCCTTTTGACAATGAACAGTCAGATTT  
GGTTCACCGAATAAGTGGTGACAAGAAGTTAGAAGAAATTCCTCAATAACAAGGATCTTTTAAAGCTTTTACCAC  
AATGGAGTTGATGCGTTGGTCCACACTTGTGAGGACTATGGAATGGAATTAAGAAAAGGTTCCCTTGAGAGTCC  
TGCAACGGATGTTTTTGGTCTACAGAGGAAGGTGAAAAAAGGTGAAAGACTTGAAGAACAGAGTTGTTGAACA  
TAATATTAGAATAATGGCCAAGTATTATACTCGGATAACAATGAAAAGGATGGCACAGCTTCTGGATCTATCTGT  
TGATGAGTCCGAAGCCTTTCTCTCAAATCTAGTAGTTAACAAGACCATCTTTGCTAAAGTAGACAGATTAGCAGG  
AATTATCAACTTCCAGAGACCCAAGGATCCAAATAATTTATTAAATGACTGGTCTCAGAACTGAACTCATTAAT  
GTCTCTGGTTAACAAAACCTACGCATCTCATAGCCAAAGAGGAGATGATACATAATCTACAAT**TA**AGGGTCTTAGTG  
CTTTAGAAAAAAGTTAAAATTGGAAGTCATTAAAAAAGACTGTTATAATGGTGTATATGTTGGGGTTTTTTTTTC  
TAAGCTTCTTTGTCTTAAATTTTAAAATAGTGAATATGTTTGAGACTCCCTTTGACCTTTTCACTTCCCAAGTTC  
ATTGTTAACTTTGCATTTGCAATTGGTGCAAAAATACAGATTTCTGTGCTCTGAATACACAAAAGTTGTGTCTAT  
AACTTACCCAGATATGTTTTTCTATCATTTGAAACCTTTTTAGCTACTGTTTGTTTTCACTTCAACTAACAAACAT  
ATTCCAATAATAAAGCAGTATATACATATTTCTTTCTACAGTTACCTCTGATTCTCAACATTTTGTGGGGTAG  
TGATTTGGCAAGTGTTTTTTTAAATAAAACAAATCTCATTGTAAAGTTATCAGTCATTTAGTAGAATAGAAAAGCA  
ACATAGAGCATACAAGAACATTTGGGATAGAGTTGTGATTTGTGAAGAATTTGTACTTTGATATTGTGGCGGAAA  
GTCTAGACTGAGTGTGTATGCTGGTAACTGTAGACTTTTTTTTTTTTTTTTGGAGTCCGGCTGGTTCCAATCACA  
GTAGCTTGATTGCTTTTACGCCCTCATCCTCTCACTTGATCAGTTGTTCAACAGAATCAGCTGACATAATTGACAC  
AGTTTATTGGGTGTTAAGTCCGCTCTATAGGGATAGTGACTACTTTTTTTTTTTTTTTTTTTTTTGTCTTCTTCTC  
CTCTCCCCCTTCTTTTATATGGGTTTTAAATTTAACATAAAGTTGTTTTTATAAGGCTTATTTGTGGCTTTAACTTG  
TAAGTCTGATTACATCATTATTGTTCCAAATTCATTATCTCTGTAGGAACTTTGTAGTTCCATTATATGAACACTG  
GATAACCTAATTTTTTTTTTAAATGCTTTAAAAAATGGCAAAAAGACGTCAGGCCACCCTCATAGTAAGTGGTGTAG  
TATTAATAATTTTTACGGAATTAAGTAGCTTGCTGTCAAAGAAACACCTGAGATGAATTGGTGTGAACGAAT  
TTTGCAGTTTTAATTTGATTTATTTTCAAGAGAAAATAGAAAAAACAATGTTAGAAGGTTATTTAAATGATACTTA  
AATAAAGAAAGTGTGAGGTCTACTTTAAAAAATTCAAATGAAGAGAAAAAGAAAAACAGCATTCTAGAAATGGC  
ATTTCTCCTAATTAATTTTCCACTTAATGGAAGATTATCAATTGTCCTATTTTATGATCCCAGGACTGAAGACAG  
TTGTGGGATATCTGTCTATTTATCCTGTGAGTCATTGTGAATAATGACATACAGTACTGAAGTAATCTGATTTT  
ATCTTTGGAAATTCATGCAATTGGTCACTAATAACATCAACATCTGCTATCACTTATCTTTTAAACTAAC  
CAAAAAGGCTGGGATTACAGGCATGAGCCACTGCACCCAACCTCCTCTTCGTCTTTCTTTAACACACACTAGGC  
TCTTTGTGATTTATGATTCAGTGCTATTTGTAAGTGTGTCAGTGACCAAAATGCACTCGACTCGATCAGCTGT  
TCATCCATTTCTGTGTTTTTCTGTCAAACATTAATCCAGCAAATATATGAGGTATTTACCAATTTATTTTCTTA  
GTATTACAAAATAATTCATTAGCATAAAGTACAATAGTGAAATATTTGAGTTGTTTCGGAACCTCAATTAATCCTG  
TTTACATTTTCAAGCCTAAAGCTGGCAATCAGGAGAAGAAGCACTTTGTTTTAAATGTGGAGAAGATAACACTTG  
ATTCCATTTCAATTGTCATTAGTGATTAACCAGCAGGAGAGGTGATGAGCCATTTTTCAAATGAAATACCTTTTA  
TTTCCATATAATTTTTTTTATTTTAGAGTTCAATAGCTGTTTCTATGATTATCCTCAATTTCCATATGTTACTGAA  
TCTGAAAAACATCTTTAAATTCAAACAGTTCCATTTTCTCTCTTGTAAAGTGTTAAATGTGATAAAGTACATAT  
TTTAAATGTTTTTCACTCTTGGATATAGCAGCAATAAAAAACACTAATTTGTGGGTATTTAAGAAAACCTGGAGA  
ATAAACTCATACTTTAAAGATC

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**FIGURE 251**

MADGGSERADGRIVKMEVDYSATVDQRLPECAKLAKEGRLQEV IETLLSLEKQTRTASDMVSTSRILVAVVKMCY  
EAKEWDLLNENIMLLSKRRSQLKQAVAKMVQQCCTYVEEITDLP IKLRLIDTLRMVTEGKIYVEIERARLTKTLA  
TIKEQNGDVKEAASILQELQVETYGSMEKKERVEFILEQMRLCLAVKDYIRTQII SKKINTKFFQEENTEKLLK  
YYNLMIQLDQHEGSYLSICKHYRAIYDTPCIQAESKWKQALKSVVLYVILAPFDNEQSDLVHRISGDKKLEEIP  
KYKDLLKLFTTMELMRWSTLVEDYGMELRKGSLESPATDVFGSTEEGEKRWKDLKNRVVEHNIRIMAKYYTRITM  
KRMAQLLDLSVDESEAFLSNLVVNKTIFAKVDRLAGIINFQRPKDPNNLLNDWSQKLNSLMSLVNKTTHLIAKEE  
MIHNLQ

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**FIGURE 252**

AGCTGAAGTTGAGGATCTCTTACTCTCTAAGCCACGGAATTAACCCGAGCAGGCATGGAGGCCTCTGCTCTCACC  
TCATCAGCAGTGACCAGTGTGGCCAAAGTGGTCAGGGTGGCCTCTGGCTCTGCCGTAGTTTTGCCCTGGCCAGG  
ATTGCTACAGTTGTGATTGGAGGAGTTGTGGCCATGGCGGCTGTGCCCATGGTGCTCAGTGCCATGGGCTTCACT  
GCGGCGGGAATCGCCTCGTCCATAGCAGCCAAGATGATGTCCGCGGCGGCCATTGCCAATGGGGGTGGAGTT  
GCCTCGGGCAGCCTTGTGGGTACTCTGCAGTCACTGGGAGCAACTGGACTCTCCGGATTGACCAAGTTCATCCTG  
GGCTCCATTGGGTCTGCCATTGCGGCTGTCATTGCGAGGTTCTACTAGCTCCCTGCCCCTCGCCCTGCAGAGAAG  
AGAACCATGCCAGGGGAGAAGGCACCCAGCCATCCTGACCCAGCGAGGAGCCAACCTATCCCAAATATACCTGGGT  
GAAATATACCAAATTCTGCATCTCCAGAGGAAAATAAGAAATAAAGATGAATTGTTGCAACTCTTAAAAAAA



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**FIGURE 253**

MEASALTSSAVTSVAKVVRVASGSAVVLEPLARIATVVIGGVVMAAVPMVLSAMGFTAAGIASSSIAAKMMSAAA  
IANGGGVASGSLVGTLQSLGATGLSGLTKFILGSIGSAIAAVIARFY

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**FIGURE 254**

CCGAGCGCCAGCGCGGGGAACCGGGAAAAGGAAACCGTGTTGTGTACGTAAGATTTCAGGAAACGAAACCAGGAGC  
CGCGGGTGTTGGCGCAAAGGTTACTCCCAGACCCTTTTCCGGCTGACTTCTGAGAAGGTTGCGCACAGCTGTGCC  
CGGCAGTCTAGAGGCGCAGAAGAGGAAGCCATCGCCTGGCCCCGGCTCTCTGGACCTTGCTCGCTCGGGAGCGG  
AAACAGCGGCAGCCAGAGAACTGTTTTAATCATGGACAAACAAAACACACAGATGAATGCTTCTCACCCGGAAC  
AAACTTGCCAGTTGGGTATCCTCCTCAGTATCCACCGACAGCATTCCAAGGACCTCCAGGATATAGTGGCTACCC  
TGGGCCCCAGGTCAGCTACCCACCCCCACCAGCCGGCCATTTCAGGTCTTGGCCCAGCTGGCTTTCCTGTCCCAA  
TCAGCCAGTGTATAATCAGCCAGTATATAATCAGCCAGTTGGAGCTGCAGGGGTACCATGGATGCCAGCGCCACA  
GCCTCCATTAACTGTCCACCTGGATTAGAATATTTAAGTCAGATAGATCAGATACTGATTTCATCAGCAAATTGA  
ACTTCTGGAAGTTTTAACAGGTTTTGAACTAATAACAAATATGAAATTAAGAACAGCTTTGGACAGAGGGTTTA  
CTTTGCAGCGGAAGATACTGATTGCTGTACCCGAAATTGCTGTGGGCCATCTAGACCTTTTACCTTGAGGATTAT  
TGATAATATGGGTCAAGAAGTCATACTCTGGAGAGACCCTAAGATGTAGCAGCTGTTGTTGTCCCTGCTGCCT  
TCAGGAGATAGAAATCCAAGCTCCTCCTGGTGTACCAATAGGTTATGTTATTTCAGACTTGGCACCCATGTCTACC  
AAAGTTTACAATTCAAATGAGAAAAGAGAGGATGTACTAAAAATAAGTGGTCCATGTGTTGTGTGCAGCTGTTG  
TGGAGATGTTGATTTTGAGATTAAATCTCTTGATGAACAGTGTGTGGTTGGCAAAATTTCCAAGCACTGGACTGG  
AATTTTGAGAGAGGCATTTACAGACGCTGATAACTTTGGAATCCAGTTCCTTTAGACCTTGATGTTAAAATGAA  
AGCTGTAATGATTGGTGCCTGTTTCCTCATTGACTTCATGTTTTTTGAAAGCACTGGCAGCCAGGAACAAAAATC  
AGGAGTGTGGTAGTGGATTAGTGAAAGTCTCCTCAGGAAATCTGAAGTCTGTATATTGATTGAGACTATCTAAAC  
TCATACCTGTATGAATTAAGCTGTAAGGCCTGTAGCTCTGGTTGTATACTTTTGCTTTTCAAATTATAGTTTATC  
TTCTGTATAACTGATTTATAAAGGTTTTTGTACATTTTTTAATACTCATTGTCAATTTGAGAAAAAGGACATATG  
AGTTTTTGCATTTATTAATGAACTTCCTTTGAAAACTGCTTTGAATTATGATCTCTGATTCTATTGTCCATTTT  
ACTACCAAATATTAATAAGGCCTTATTAATTTTTATATAAATTATATCTTGTCTTATTAATCTAGTTACAATT  
TATTTTCATGCATAAGAGCTAATGTTATTTTGCAAAATGCCATATATTCAAAAAAGCTCAAAGATAATTTTCTTTAC  
TATTATGTTCAAATAATATTCAATATGCATATTATCTTTAAAAAGTTAAATGTTTTTTTTAATCTTCAAGAAATCA  
TGCTACACTTAACCTCTCCTAGAAAGCTAATCTATAACCATAATATTTTCATATTCACAAGATATTAAATTACCAAT  
TTTCAAATTATTGTTAGTAAAGAACAAAATGATTCTCTCCCAAAGAAAGACACATTTTAAATACTCCTTCACTCT  
AAAACCTCTGGTATTATACTTTTGAAAGTTAATATTTCTACATGAAATGTTTAGCTCTTACACTCTATCCTTCCT  
AGAAAAATGGTAATTGAGATTACTCAGATATTAATTAATAACAATATCATATATATATTACAGAGTATAAACCTA  
AATAATGATCTATTAGATTCAAATATTTGAAATAAAAACTTGATTTTTTTGT

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**FIGURE 255**

MDKQNSQMNASHPETNLPVGYPPQYPPTAFQGPPGYSGYPGPQVSYPPPPAGHSGPGPAGFFVFNQPVYNQPVYN  
QPVGAAGVPWMPAPQPPLNCPGLEYSQIDQILIHQQIELLEVLTFETNNKYEIKNSFGQRVYFAAEDTDCCT  
RNCCGPSRPFTLRIIDNMGQEVITLERPLRCSSCCCPCLQEIEIQAPPGVPIGYVIQTWHPCLPKFTIQNEKRE  
DVLKISGPCVVCSCCGDVDFEIKSLDEQCVVGKISKHWTGILREAFDADNFGIQFPLDLVDKMKAVMIGACFLI  
DFMFFESTGSQEQKSGVW

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**FIGURE 256A**

ACTCTGGAGTGGGAGTGGGAGCGAGCGCTTCTGCGACTCCAGTTGTGAGAGCCGCAAGGGCATGGGAATTGACGC  
CACTCACCGACCCCCAGTCTCAATCTCAACGCTGTGAGGAAACCTCGACTTTGCCAGGTCCCCAAGGGCAGCGGG  
GCTCGGCGAGCGAGGCACCCCTTCTCCGTCCCCATCCCAATCCAAGCGCTCCTGGCACTGACGACGCCAAGAGACT  
CGAGTGGGAGTTAAAGCTTCCAGTGAGGGCAGCAGGTGTCCAGGCCGGGCCTGCGGGTTTCTGTTGACGTCTTGC  
CCTAGGCAAAGGTCCCAGTTCCTTCTCGGAGCCGGCTGTCCGCGCCACTGGAAACCGCACCTCCCCGCAGCATG

GGCACCAGCCTCAGCCCCAAGCACCCCTTGGCCGCTAAACCCGCTGTCCATCCAGCAGACCACGCTCCTGCTACTC  
CTGTCCGTGCTGGCCACTGTGCATGTGGGCCAGCGGCTGTGAGGCAACGAGGCGGCAGCTCCGGTCCGCGCCC  
CCGGGCCCCGTTTTCGTGGCCACTGATCGGAAACGCGCGCGGCTGGGCCAGGCGGCTCACCTCTCGTTCGCTCGC  
CTGGCGCGGCGCTACGGCGACGTTTTCCAGATCCGCCCTGGGCAGCTGCCCCATAGTGGTGCTGAATGGCGAGCGC  
GCCATCCACCAGGCCCTGGTGACGAGGGCTCGGCCCTTCGCCGACCGGCCGGCCTTCGCCTCCTTCCGTGTGGTG  
TCCGGCGGCCGAGCATGGCTTTCGGCCACTACTCGGAGCACTGGAAGGTGCAGCGGCGCGCAGCCACAGCATG  
ATGCGCAACTTCTTACGCGCCAGCCGCGCAGCCGCCAAGTCTCGAGGGCCACGTGCTGAGCGAGGCGCGCGAG  
CTGGTGGCGCTGCTGGTGCGCGGCGAGCGCGGACGGCGCCTTCTCGACCCGAGGCCGCTGACCGTCTGGGCCGTG  
GCCAACGTATGAGTGCCGTGTGTTTTCGGCTGCCGCTACAGCCACGACGACCCGAGTTCCGTGAGCTGCTCAGC  
CACAACGAAGAGTTTCGGGCGCACGGTGGGCGCGGGCAGCCTGGTGGACGTGATGCCCTGGCTGCAGTACTTCCCC  
AACCCGGTGCACACCGTTTTTCGCGCAATTTCGAGCAGCTCAACCGCAACTTCAGCAACTTCATCCTGGACAAGTTC  
TTGAGGCACTGCGAAAGCCTTTCGGCCCCGGGGCCGCCCGGACATGATGGACGCCTTTATCCTCTCTGCGGAA  
AAGAAGGCGCGCGGGGACTCGCACGGTGGTGGCGCGGCTGGATTTGGAGAACGTACCGGCCACTATCACTGAC  
ATCTTCGGCGCCAGCCAGGACACCCTGTCCACCGCGCTGCAGTGGCTGCTCCTCCTCTTACCAGGTATCCTGAT  
GTGCAGACTCGAGTGACGGCAGAATTGGATCAGGTCGTGGGGAGGGACCGTCTGCCTTGTATGGGTGACCAGCCC  
AACCTGCCCTATGTCTTGGCCTTCTTTATGAAGCCATGCGCTTCTCCAGCTTTGTGCCTGTCACTATTCTCAT  
GCCACCCTGCCAACACCTCTGTCTTGGGCTACCACATTCCCAAGGACACTGTGGTTTTTGTCAACCAGTGGTCT  
GTGAATCATGACCCAGTGAAGTGGCCTAACCCGGAGAACTTTGATCCAGCTCGATTCTTGGACAAGGATGGCCTC  
ATCAACAAGGACCTGACCAGCAGAGTGATGATTTTTTCAGTGGGCAAAAGGCGGTGCATTGGCGAAGAACTTTCT  
AAGATGCAGCTTTTTTCTCTTCTCATCTCCATCCTGGCTCACCAGTGCGATTTTCAGGGCCAAACCCAAATGAGCCTGCG  
AAAATGAATTTTCAGTTATGGTCTAACCATTAAACCCAAAGTCATTTAAAGTCAATGTCACTCTCAGAGAGTCCATG  
GAGCTCCTTGATAGTGCTGTCCAAAATTTACAAGCCAAGGAAACTTGCCAATAAGAGCAAGAGGCAAGCTGAAA  
TTTTAGAAATATTCACATCTTCGGAGATGAGGAGTAAATTCAGTTTTTTTCCAGTTCCTCTTTTGTGCTGCTTC  
TCAATTAGCGTTTAAAGGTGAGCATAAATCAACTGTCCATCAGGTGAGGTGTGCTCCATACCCAGCGGTTCTTCAT  
GAGTAGTGGGCTATGCAGGAGCTTCTGGGAGATTTTTTTGAGTCAAAGACTTAAAGGGCCCAATGAATTATTATA  
TACATACTGCATCTTGTTATTTCTGAAGGTAGCATTCTTTGGAGTTAAATGCACATATAGACACATACACCCA  
AACACTTACACCAAACCTACTGAATGAAGAAGTATTTTGGTAACCAGGCCATTTTGGTGGGAATCCAAGATTGGT  
CTCCCATATGCAGAAATAGACAAAAAGTATATTAACAAAGTTTCAGAGTATATTGTTGAAGAGACAGAGACAAG  
TAATTTTCAGTGTAAGTGTGTGATTGAAGGTGATAAGGGAAAAGATAAAGACCAGAAATTCCTTTTTACCTTTT  
CAGGAAAATAACTTAGACTCTAGTATTTATGGGTGGATTTATCCTTTTGCCTTCTGGTATACTTCCTTACTTTTA  
AGGATAAATCATAAAGTCAGTTGCTCAAAAAGAAATCAATAGTTGAATTAGTGAGTATAGTGGGGTTCCATGAGT  
TATCATGAATTTTAAAGTATGCATTATTAAATTGTAAAACCTCCAAGGTGATGTTGTACCTCTTTTGGCTTGCCAAA  
GTACAGAATTTGAATTATCAGCAAAAGAAAAAAGCCAGCCAAGCTTTAAATTATGTGACCATAATGTACT  
GATTTTCAGTAAGTCTCATAGGTTAAAAAAGGTCACCAAATAGTGTGAAATATATTACTTAACTGTCCGTAAG  
CAGTATATTAGTATTATCTTGTTCAGGAAAAGGTTGAATAATATATGCCTTGTGTAATATTGAAAATTGAAAAGT  
ACAATAACGCAACCAAGTGTGCTAAAAATGAGCTTGATTAAATCAACCACCTATTTTTTGACATGGAAATGAAGC  
AGGGTTTCTTTTCTTCACTCAAATTTTGGCGAATCTCAAATTAGATCCTAAGATGTGTTCTTATTTTTATAACA  
TCTTTATTGAAATTTCTATTTATAATACAGAATCTTGTTTTGAATAAACCTAATTAATATATTAATAATTCAAAT  
TCATGGCATGCTTAAATTTTAACTAAATTTTAAAGCCATTCTGATTATTGAGTTCAGTTGAAGTTAGTGGAAT  
CTGAACATTCTCCTGTGGAAGGCAGAGAAATCTAAGCTGTGTCTGCCCAATGAATAATGAAAATGCCATGAATT  
ACCTGGATGTTCTTTTTACGAGGTGACAAGAGTTGGGGACAGAATCCCATTACAACCTGACCAAGTTTCTCTTCT  
AGATGATTTTTTGAAGTTAACATTAATGCCTGCTTTTTGGAAGTCAAGATCAGAAGATAGTCTTGAAGCTGT  
TTGGAAGACAGTGGAGATGAGGTGAGTTGTGTTTTTAAAGATGGCAATTACTTTGGTAGCTGGGAAAGCATAA

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**FIGURE 256B**

AGCTCAAATGAAATGTATGCATTACATTTAGAAAAGTGAATTGAAGTTTCAAGTTTTAAAGTTCATTGCAATTA  
AACTTCCAAAGAAAGTTCTACAGTGTCTAAGTGCTAAGTGCTTATTACATTTTATTAAGCTTTTGGAAATCTTT  
GTACCAAAATTTTAAAAAAGGGAGTTTTTGATAGTTGTGTGTATGTGTGTGGGGTGGGGGGATGGTAAGAGAA  
AAGAGAGAAACACTGAAAAGAAGGAAAAGATGGTTAAACATTTTCCCACTCATTCTGAATTAATTAATTGGAGCA  
CAAAATTCAAAGCATGGACATTTAGAAGAAAGATGTTTGGCGTAGCAGAGTTAAATCTCAAATAGGCTATTAAAA  
AAGTCTACAACATAGCAGATCTGTTTTGTGGTTTGGAAATATTAAAAAACTTCATGTAATTTTATTTTAAATTTT  
ATAGCTGTACTTCTTGAATATAAAAAATCATGCCAGTATTTTTAAAGGCATTAGAGTCAACTACACAAAGCAGGC  
TTGCCCAGTACATTTAAATTTTTTGGCACTTGCCATTCCAAAATATTATGCCCCACCAAGGCTGAGACAGTGAAT  
TTGGGCTGCTGTAGCCTATTTTTTTTAGATTGAGAAATGTGTAGCTGCAAAAATAATCATGAACCAATCTGGATGC  
CTCATTATGTCAACCAGGTCCAGATGTGCTATAATCTGTTTTTACGTATGTAGGCCAGTCGTCATCAGATGCTT  
GCGGCAAAAGAAAGCTGTGTTTATATGGAAGAAAGTAAGGTGCTTGGAGTTTACCTGGCTTATTTAATATGCTTA  
TAACCTAGTTAAAGAAAGGAAAAGAAAACAAAAACGAATGAAAATAACTGAATTTGGAGGCTGGAGTAATCAGA  
TTACTGCTTTAATCAGAAACCTCATTGTGTTTCTACCGGAGAGAGAATGTATTGTGACAACCATTAAAGTCA  
GAAGTTTTACTCCAGGTTATTGCAATAAAGTATAATGTTTATTAAATGCTTCATTTGTATGTCAAAGCTTTGACT  
CTATAAGCAAATTGCTTTTTTCCAAAACAAAAAGATGTCTCAGGTTTGTGTTTGTGAATTTTCTAAAAGCTTTCAT  
GTCCCAGAACTTAGCCTTTACCTGTGAAGTGTTACTACAGCCTTAATATTTTCCTAGTAGATCTATATTAGATCA  
AATAGTTGCATAGCAGTATATGTTAATTTGTGTGTTTTTAGCTGTGACACAACCTGTGTGATTAAAAGGTATACTT  
TAGTAGACATTTATAACTCAAGGATACCTTCTTATTTAATCTTTTCTTATTTTGTACTTTATCATGAATGCTTT  
TAGTGTGTGCATAATAGCTACAGTGCATAGTTGTAGACAAAGTACATTCTGGGGAAACAACATTTATATGTAGCC  
TTTACTGTTTGATATACCAAATTAATAAAAAAATTGTATCTCATTACTTATACTGGGACACCATTACCAAAATAAT  
AAAAATCACTTTCATAATCTTGAAAAA

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**FIGURE 257**

MGTSLSPNDPWPLNPLSIQQTLLLLLSVLATVHVGQRLLRQRRRQLRSAPPGPFAWPLIGNAAAVGQAAHLSFA  
RLARRYGDVFQIRLGSCPIVVLNGERAIHQALVQQGSADFADRPFAFASFRVVS GGRSMAFGHYSEHWKVORRAHS  
MMRNFFTRQPRSRQVLEGHVLSEARELVALLVRGSADGAFLDPRPLTVVAVANVMSAVCFGCRYSHDDPEFRELL  
SHNEEFGRITVGAGSLVDVMPWLQYFPNPVRTVFREFEQLNRNFSNFILDKFLRHCESLRPGAAPRDMMDAFILSA  
EKKAAGDSHGGGARLDLENVPATITDIFGASQDTLSTALQWLLLLFTRYPDVQTRVQAEQVVGDRDLPCMGO  
PNLPYVLAFLYEAMRFSFVPTIPHATTANTSVLGYHIPKDTVVFVNQWSVNHDPVKWPNPENFDPARFLDKDG  
LINKDLTSRVMIFSVGKRRCIGEELSKMQLFLFISILAHQCDFRANPNPAKMNFSYGLTIKPKSEKVNVTRES  
MELLD SAVQNLQAKETCQ

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**FIGURE 258**

CCCGCCTGACGACTGACCAGTTGCCATGGCATCCTACTACGAGATCCTAGACGTGCCGCGAAGTGCGTCCGCTGA  
TGACATCAAGAAGGCGTATCGGCGCAAGGCTCTCCAGTGGCACCCAGACAAAAACCCAGATAATAAAGAGTTTGC  
TGAGAAGAAATTTAAGGAGGTGGCCGAGGCATATGAAGTGCTGTCTGACAAGCACAAAGCGGGAGATTTACGACCG  
CTATGGCCGGGAAGGGCTGACAGGGACAGGAAGTGGCCCATCTCGGGCAGAAGCTGGCAGTGGTGGGCCTGGCTT  
CACCTTCACCTTCCGAGCCCCGAGGAGGTCTTCCGGGAATTCTTTGGGAGTGGAGACCCTTTTGCAGAGCTCTT  
TGATGACCTGGGCCCCCTTCTCAGAGCTTCAGAACCGGGGTCCCGACACTCAGGCCCCCTTCTTTACCTTCTCTTC  
CTCCTTCCCTGGGCACTCCGATTTCTCTCTCTCATCTTTCTCTTCAGTCTGGGGCTGGTGCTTTTTCGCTCTGT  
TTCTACATCTACCACCTTTGTCCAAGGACGCCGCATCACCACACGCAGAATCATGGAGAACGGGCAGGAGCGGGT  
GGAAGTGGAGGAGGATGGGCAGCTGAAGTCAGTCACAATCAATGGTGTCCCAGATGACCTGGCACGTGGCTTGGA  
GCTGAGCCGTCGCGAGCAGCAGCCGTCACTACTTCCAGGTCTGGGGGCACTCAGGTCCAGCAGACCCCTGCCTC  
ATGCCCCCTGGACAGCGACCTCTCTGAGGATGAGGACCTGCAGCTGGCCATGGCCTACAGCCTGTCAGAGATGGA  
GGCAGCTGGGAAGAAACCCGCAGGTGGGCGGGAGGCACAGCACCGACGGCAGGGGCGCCCAAGGCCAGCACCAA  
GATCCAGGCTTGGGGGGGACCCAGGAGGGTGGGAGGGGTGAAGCAACCAACGCAGTCCATCCCCAGAGGAGAAG  
GCCTCTCGCTGCCTCATCTCTGAACACCGGGGCCAACCTGATCTGATCCAGATCTTGACTGGGGGGTCTGACTC  
ACTGTGGGAAGAGAAGAGGGGAGTATCCTTGAGTTGTAGGAAGTGTCTTTCCAACCTCCAAGCTCCCTCCACAAGTTT  
CCCTCCCCAGGCCCCCACACCCAGTGTGGACTTGGGATTGTGTGTCTCAGCCCAGGGCTGATAGGTCCCTGG  
TGAAGCCCAGGGTGGGGGGTGTGAGGGCAGTGGAGGGGCCCCAGGAGCCAGGTTCATTTATTGGATGGGGAGCT  
CCAAGGGGCATTAGTGGTTTGGGCTGGGCTTTTGTGCCCTGGTACTCTGCCACCTGTGTTGTGATGGTGTCAAG  
GAAGGAGGACTTGGCCTAGGGTTGTCTGAGCCGGAGCCGGCAGCTCCACTGGAGAGCAGTGCAGGCAGAGTGGAG  
CCTCCTGCTCTCCTGGACCAGCTGCAGACCCCCAACCTGTTTTCTGTGCCATGTTGCGCTCTGACCGTCTCTGT  
TGCTTCTCTTCTGGTGTGTCTTCTCCTCCCTCCATTCTCTCTGCAACTCCTGCGGGCGCATCGCTTGCTTTTAC  
TGCCGTCTGGCTAGGACTCCCTTCTTCTCCTTCCCTCCCGAGAAGGCCTCAATGTGGCGAGGAAGATGCTGGGGCC  
GGTAGGGCTGTGAGATCTTCTGGGGAGGCTAGCCGGGTGGGGCGGGAGCCTCTCAGCTGTCCAGATTGAGAACTG  
GAGCCCACTCCTCCTCCTCTCGTTGCCTCAGCCCTGCCCTCACCTCAGACTAGGCAGAGGTGAGGCTGGCTCA  
CCCTGAAGAGGTGGGATAGGAGGGGACTGCACCCATACTGCTTCCCTACCACAAATCAGGGCTCAGGGAGAGGCC  
ATGCGGCAGCCCAGGTCTGCATGCTGAGCCCCATCCTCCACAGCTTGCCGCTGACGCTCTCTCCTGTACCCCCG  
CCCTGCTCTCTCCCCAGATGTGTTCTGAGCTGGATGCCGGGTTCAGAAATCGCTGCACAGTTCCAACAGGACAGC  
GCCTTCCCCCATGCGCTGGGAGGGGACCCTCCATTTCTCCCCCTACCCATGCTGAGTGTAGAGCCGGGGCCTGG  
GTGGCGGGTGGGGCCGGGTGGGAGGTGGCAGTAGTCTTAGCCTGTGCACTCTCTTCTTGGGTGTTTGGTGTCTG  
GCTCCTGGGGACTACAAATCCCAGAGTGCGGTGTGCCCGGCCTCATTTCTGATAGATCCCGCTTGGGGAGGTGG  
TGTATGGTTACGGAGCTGTGCATCTTGGGACATGTAGTAGCCAGGTCTTGTCACTCGCTGTGAGATGGGGAGAT  
TTTGTCTTTTGATTTATCCCTGTAGGGCTGGCAGGGTTGTAGATGAAGGGGGAATGATCTGAGCCTTGTTTCCCC  
TGACACGTCTTGCTAGCCCCAGGGTTAGAGTGGGCAGGGCAGAGCCGCGCAGCACCTGGGAGCGGTACCTTTCCC  
TTGGGCAGCCTGGGGTCCCAGGAACAAGCCAGGGCGAGTGGCATGTCTGCCTGAGCAGGGTGTGGCCCCAGAAAG  
CTGAGGAGTGTGGGCTGGCAGAGAGCTTCGAGGGCAAGGCCACCCGCGGGGGCGTGTGTGTGGTGGGGCTTGGCA  
TGTGATGGCAGCTCCAGCTCCAGGCATGCCGCTGCTTGTATGGCTTTCTTTGGCCTCTGACCTGCTGCCATTCT  
TTTCCAACATCACAGATGAACTGCCTCTCTCCTCCTGCTGGGGAGCCAGTGGCCAGGGAGGGAGTGGTGGGA  
GCCAGTCGCTGTAACTGAGCCTCAGAGACGAACCAAAACCAGCTGGGCTGAGCTCAGATCCAGGGGGAAGAAA  
TGCTGGAAGTCAATAAAACTGAGTTTGAGAAAAA

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**FIGURE 259**

MASYYEILDVPRSASADDIKKAYRRKALQWHPDKNPDNKEFAEKKFKEVAEAYEVLSDKHKREIYDRYGREGLTG  
TGTGPSRAEAGSGGPGFTTFRSPPEEVFREFFGSGDPFAELFDDLGPFFSELQNRGSRHSGPFFTFSSSFPGHSD  
SSSSFSFSPGAGAFRSVSTSTTFVQRRITRRIMENGQERVEVEEDGQLKSVTINGVPDDLARGLELSRREQQP  
SVTSRSGGTQVQQTPASCPDSDLSEDEDLQLAMAYSLSEMEAAGKKPAGGREAQHRRQGRPRPSTKIQAWGGPR  
RVRGVKQPNVHPQRRRPLAASSSEHRAQPDLIQILTGGSDSLWEEKRGVS



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**FIGURE 260**

GTGAAACACCCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTCTTGTTTGAACATGGTGCGGACTAA  
AGCAGACAGTGTTCCAGGCACTTACAGAAAAGTGGTGGCTGCTCGAGCCCCCAGAAAGGTGCTTGTTTCTTCCAC  
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAATAAATATGCAGGAGGGAACCCCGTTTGCCT  
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCTTTAGGTTGTCCCCTAAAGATTCTGAAAAAGAGAA  
TCAGATTCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCTTTGCAACCTGATCA  
CACAAATGATGAAAAAGAAATAGAACTTTCTCATTTCATCTTTGAATAACGTCTCCTTGTTTACCCCTGGTATTCTAG  
AATGTAAATTTACATAAATGTGTTTGTTCCAATTAGCTTTGTTGAACAGGCATTTAATTAAAAAATTTAGGTTTA  
AATTTAGATGTTCAAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACCTTAGCTTAGTATTCA  
ATATAATGCATTGTTTGGTTTCTTTTACCAAATTAAGTGTCTAGTTCTTGCTAAAATCAAGTCATTGCATTGTGT  
TCTAATTACAAGTATGTTGTATTTGAGATTTGCTTAGATTGTTGTACTGCTGCCATTTTTATTGGTGTGTTGATTA  
TTGGAATGGTGCCATATTGTCACTCCTTCTACTTGCTTTAAAAAGCAGAGTTAGATTTTTGCACATTAAAAAATT  
CAGTATTAATT

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**FIGURE 261**

MVRTKADSVPGTYRKVVAAARAPRKVLGSSTSATNSTSVSSRKAENKYAGGNPVCVRPTPKWQKGIGEFFRLSPKD  
SEKENQIPEEAGSSGLGKAKRKACPLQPDHTNDEKE

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**FIGURE 262A**

TGCAGCGCTAGAAAGGAATTGTCTGACCCAGCATTGCTTCCTGGCTCCTTTCTTCCTTTTTTCAGGAGAGCATCC  
TGCCGACCACAGCCCTCCCCACTGTGAGCCTTCCTGACAGCCTCATCGCGCCCCCTACCGCCCCATCCCTGGCTC  
ACATGGATGAGCAGGGCTGTGAACACACCTCCCGACTGAGGACCCGTTTATCCAGCCCACGGAATTCCGTCCCT  
CAGAGCCGCCACTGAGTGTCCCGCAGCCCTTCCTCCCTGTCTTCACCATGCCCCTGCTGTCTCCAGCCCCGCC  
CACCGCCCATCTCCCCCGTGTACCATTAGTTCCCTCCTCCTGCCACTGCCCTGAACCCCCCGGCTCCACCCACCT  
TCCATCAGCCACAGAAGTTTGCTGGAGTCAACAAAGCGCCGTCTGTATCACCACACGGCCTCTGCCACCCCTCA  
CCCAGATGCCCCCGCCACCACCTTTAGCCAGAGTCAGGGCCTTGTGATCACCACCCATCACCCTGCCCCGTGAG  
CGGCCCCCTTGTGGGCTGGCACTGTCTCCTGTACCCGGCCTCCCCAGCCACGGTTAACTTTTGTGCACCCCAAAC  
CTGTATCCTTGACTGGGGGCAGGCCTAAGCAGCCCCACAAATAGTGCCTGCTCCCAAACCAGAGCCCGTGTCTT  
TGGTGTGAAGAATGCCCCGATCGCCCCAGCTGCCTTTTCAGGCCAACCACAAGCGGTGATCATGACGTGAGGGC  
CTCTGAAGAGAGAAGGGATGTTGGCCTCCACCGTGTCCAGTCCAACGTGGTCATTGCGCCTGCTGCCATCGCCA  
GGGCTCCTGGGGTCCCGGAGTTCCACAGCAGCATCCTGGTGACAGATCTCGGCCATGGCAGGAGCAGCCCGCCTG  
CCCCCGTCTCCCGGCTCTTCCCAAGCACAGCGCAAGACCCCCCTGGGGAAGGGCGAGCAGGTCCCGCTGCATGGGG  
GCAGCCCCCAGGTCACTGTACAGGGGCCAGTCGGGACTGCCAAACTCAGGGCAGGCCTCTCCGTGTGCATCGG  
AGCAGAGCCCCAGTCTCAATCTCCCCAGAACAAGTCTCAGGGAATCCGACCCCCAAAATGTGGCTGCACTAA  
AGAACCGGCAGATGAAGCACATCTCAGCTGAGCAGAAAAGCGCTTCAACATCAAGATGTGCTTCGACATGCTCA  
ACAGCCTCATCTCCAACAATTCCAAGCTGACCAGTCACGCCATCACACTGCAGAAGACTGTGGAGTACATCACCA  
AGCTGCAGCAGGAGAGAGAGGCCAGATGCAGGAGGAGGCCCGGCGGCTGCGGGAGGAGATCGAGGAGCTCAATGCCA  
CCATCATCTCCTGCCAGCAGCTGCTCCCTGCCACGGGAGTCCCCGTTACCCGGCGCCAGTTTGATCACATGAAAG  
ACATGTTTGACGAATACGTGAAAACCCGGACCTTGCAAGAATTGGAAGTTCTGGATTTTCAGCATCATCATCAAGC  
CGCTGTTTGAGTCGTTCAAGGGCATGGTGTCCACCAGCAGCCTGGAGGAGCTGCACCGGACGGCGCTCTCCTGGC  
TGGACCAGCACTGCTCCCTGCCCATCCTCAGGCCGATGGTATTGAGCACGCTGCGGCAGCTGAGCACCTCCACCT  
CCATCCTCACAGACCCGGCACAGCTGCCAGAGCAGGCGTCCAAGGCTGTACCAGGATTGGCAAGAGATTGGGAG  
AGTCCCTAGCTGCTTAGCTGGCATGTGGCCGATGAGATGCCAGGAGACCCTTCCCTGCCCATGGAGAGTAGGCTG  
CGCCCCCAGCCCTTCTGACGCTCAGCCTCGGGGCTCTCTCCAACCTGCGCGGCCACCGTGGCATCGGGAGG  
CCATGCTCAGGTCTGAAGCAGGTTTGGGGCCTGCTGACAGCAATAGCCCGCCTTTGGGAACCCCTTGCTGTGAAC  
TCTCTCACTCAGTGACCTCAGTCACCAACCTCCTCTGCCCTCGGGGAGCCACACAAAAGGGAAGTGTGGCCG  
TGCTGGTCTCTGCCCTGCTGGTGGCCTGCCGGGCTGGCGCCGCTGAGCGGAATCGATGGGATGAGGGTGACAGGG  
CCTGCTCCTGTCTGAGGCCAGCCTTGTCCCTCCTGCCAGCTCCTGTCCACATGCATGCCTCTGCCTGATGCCC  
TGCTCCACTCTCTGGTCTGCCCGTGGGGCAGTTGGAAGGCGTCTTTCTTCTCCCTCAACTCTGACAGCACCCA  
GCCCTTGTGGATGGACTTGGGCTTCTATTAGGCTTATGCATGGCAGGCTGCCAGGGGGAAGTGCTTCTTTCAGA  
GGTCTCCAGGACACATGTGTGAGAAACGGTGGATGTGGAACACACAGGACCAGAAATGGAAGCGTGTGATGCAC  
GGTGGCTGCTCTGGCTGAGAGGCCCTGCTGGGCATGTTTCATCTGTCCCTTTTAGCTCCACCTGACATTGCAGG  
ATCCATGGGGACTCAGCCCAGGGCCTTCTCGGATGTACCTCACCGCTGTGGCCCTTCTGCCGTTCTTCTCCACT  
TGGCTCCAGCTGCAGCTGTTGACAGATCAAGCATGTCTGTGGGAGCTTAGAACCTGAAGTTCTAGTGTCTGAA  
AGATCAGACTCCACGTCCTGCTGTGACGCTTGTCTGATGTCTTTCAGCTGGGAGCCCCAAACCAGGA  
CAGTTCTCGGACCAAAGATGCCCCACACTCAAAAGTCTGTCCCGTCTTGTGTTTGGAGAAGGAAACAATGTTGG  
CAGGCAGCACTCTGTGGTGGTCAGCCCTCAGAGCTGTTTCTAGGCATCTCTCAGATCAGACAGCAAAGAATCTAC  
CCAGATCTGGGCTGGGTGGAGGTGTGGCTGGGCTGGGGGCCATTCTGAGCCTGCAGTGAGAGTTTGGCCCAGCCT  
CAGTCTTGTCTTCTCTGGCTACCTCTGCAGGGAGCTGCAGGGGCAAGCACTCTCTCCAGCACTCAGGAAGCCC  
GGCCGAGGGTACCTCCTCGTGGAAGAATGCACTTTAAAGCTCTGCTGAGGAGTTCGGAGCCCAGGCTTTTAGGC  
GACCTCTGCCCTCCCTGCCTCTCCTCACCTCCCTCTCTTCTGTCAGGGCCTGGGAAGGGCTTTGAGGGAGCCTG  
GGAGCCATGTGAAGAGGGGCACGCCTGGGCTGTCCACAGTTTATGATCCAGTTGGAGGTTCTCCCTGGCTCCTGC  
AGGCCTGCGGGGATCTCTCCCCACTTCAGGCCTCCGGCCAGCTGCCTGCCCTCTTGTCTGTGCTTCAGCCCTGCA  
CAAAAGCAGCTTGGTGACACCACTCAGCCACCCAGAGTACGTGTTTACAGGCTTTCAGATCACCTTCTGTGGG  
GTGAACGTAATGAGGCGGGCTGGTCTTGAATTTCCCCTGGAAAATGGTAACAGACTCCATCCTTGACCCGGG  
GATGAGCATGAAGGCATTGTCCCAAAGGCAGAGGCCACCGTGGTAGGAATTCCACCAAGGCCAGAAGGGAAAAAG  
GAAGAACCCACCGTGTCTGGCTGTGCGGGCCTGGGGAGGCTCGTGAGTGCAGCCCTCTCTACTTCTGTGCCTT

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**FIGURE 262B**

TGTA AACGTGTAGATAACCGCAGTGGTTGGCTGAGCCAAGAACTCTCCTAAATCAGTGGCTTTCTCCCCACCCC  
TTGCTGGGGAGTCATTTTTTAAAAAATCTGTGGGATATAAAATTGGCCTCCTGCTGCTTCAGCCTACCTCTCCCT  
CTGCTGACTTAATGTCGTGATTCTGTTTCTTCAGATATTTAAGGCTGTTAGGTTGTGTGAGCCTTGAAGTGTGTG  
TGTGTGTCGCCAGCGACTGTCCACTGTCCAGGAGATGCATGTCTTTGTATTGGAGATATTTCTGTAACTCATTCTC  
TTGGTGCTCACGATTGCCATGGCCATAGGGCCACAGTGCCGTATCTGCTGCAGACATGATTGTTTCTTGTTCTAG  
AGGTTTTCTTGTTTTTCGAATCTTGCCTGATGAATCCAGCCAGACCAAGGGGCCTAGATTTGACCTCTGTCCTGGG  
CTCCTGGGCCAGGTGCAGGAACATCTGAGGCCACTCTGCTGGCCACCTCCAGTGGGTGCTGACCACAGGATGGGC  
TTTGTTTACACTCATTTTCACCCTGATTCTTGCCCCCACTTTCATAAAAGAACTTCAAAATGCTGACGCTTTGG  
AGAGTAAGAAAATCAATCTTGGCTGGGCACGGTGGCTCCTGCCTGTGATCCTAGCACTTTGGGAGGCTGAAGCTG  
AAGGATCACTTGAGCTCAGGAGTTGGAGACCAACCCTGGCAACATAACAAGACCCTGTCTCTAC

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**FIGURE 263**

MDEQGCEHTSRTEDPFIQPTDFGPSEPPLSVPQPFLPVFTMPLLSPSPAPPPISPVLPLVPPPATALNPPAPPTF  
HQPQKFAGVNKAPSVITHASATLTHDAPATTFSQSQGLVITTHHPAPSAAPCGLALSPVTRPPQPRLTFVHPKP  
VSLTGGRPKQPHKIVPAPKPEPVSLVLKNARIAPAAFSGQPQAVIMTSGLKREGMLASTVQSNNVVIAPAAIAR  
APGVPEFHSSILVTDLGHTSSPPAPVSRLEPSTAQDPLGKGEQVPLHGGSPQVTVTGPSRDCPNSGQASPCASE  
QSPSPQSPQNNCSGKSDPKNVAALKNRQMKHISAEQKRRFNIKMCFDMLNSLISNNSKLTSHAITLQKTVEYITK  
LQQERGQMQUEEARRLREEIEELNATIIISQQLLPATGVPVTRRQFDHMKDMFDEYVKTRLQNWKFWIFSIIIKP  
LFESFKGMVSTSSLEELHRTALSWLDQHCSLPILRPMVLSTLRQLSTSTSILTDPAQLPEQASKAVTRIGKRLGE  
S

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**FIGURE 264**

GACTTTTGGTGGCAAGAGGAGCTGGCGGAGGCCAGCCAGCCAGTGGCGGGGCCAGGGGAGGGGGCGGCGAGGTAGGTGCA  
GCCACTCCTGGGAGGACCCCTGCGTGGCCAGACGGTGCTGGTGACTCGTCCACACTGCTCGCTTCGGATACTCCAG  
GCGTCTCCCCTTGGCGCCGCTCCCTGCCTTAGAGGCCAGCCTTGGACACTTGCTGCCCCCTTCCAGCCCGGATTCTG  
TGGGATCCTTCCCTCTGAGCCAACATCTGGGTCTGCCTTCGACACCACCCCCAAGGCTTCTACCTTGCGTGCCT  
GGAGTCTGCCCCAGGGGGCCCTTGCTCTGGGGCCATGCCCCAGAAAGGGGGTCTTGGGGCCTGGGCGACTGGGGGCTG  
TGGCCATTCTGCTCTATCTTGGATTACTCCGGTTCGGGGACAGGAGCGGAAGGGGGCAGAAGCTCCCTGCGGTGTGG  
CCCCCAAGCACGCATCACAGGTGGCAGCAGTGCAGTGCGCCGGTTCAGTGGCCCTGGCAGGTCAGCATCACCTATG  
AAGGCGTCCATGTGTGTGGTGGCTCTCTCGTGTCTGAGCAGTGGGTGCTGTTCAGCTGCTCACTGCTTCCCCAGCG  
AGCACCACAAGGAAGCCTATGAGGTCAAGCTGGGGGGCCCCACCAGCTAGACTCCTACTCCGAGGACGCCAAGGTCA  
GCACCCTGAAGGACATCATCCCCCACCACAGCTACCTCCAGGAGGGCTCCAGGGGCGACATTGCACTCCTCCAAC  
TCAGCAGACCCATCACCTTCTCCCGCTACATCCGGCCCCATCTGCCTCCCTGCAGCCAACGCCCTCCTTCCCCAACG  
GCCTCCACTGCACTGTCACTGGCTGGGGTCACTGTGGCCCCCTCAGTGAACCTCCTGACGCCCCAAGCCACTGACG  
AACTCGAGGTGCCCTCTGATCAGTTCGTGAGACGTGTAAGTGCCTGTACAACATCGACGCCAAGCCTGAGGAGCCGC  
ACTTTGTCCAAGAGGACATGGTGTGTGCTGGCTATGTGGAGGGGGGGCAAGGACGCCCTGCCAGGGTGACTCTGGGG  
GCCCCACTCTCCTGCCCCCTGTTGAGGGGTCTCTGGTACCTGACGGGCATTGTGAGCTGGGGAGATGCCTGTGGGGGCC  
GCAACAGGCCCTGGTGTGTACACTCTGGCCTCCAGCTATGCCTCCTGGATCCAAAGCAAGGTGACAGAAGTCCAGC  
CTCGTGTGGTGGCCCCAAACCCAGGAGTCCAGCCCGACAGCAACCTCTGTGGCAGCCACCTGGCCCTTCACTCTG  
CCCCAGCCAGGGCTTGTCTGAGGCCCATCCTTTTCTGCCTCTGGGGCTGGCTCTGGGGCTCCTCTCCCCATGGC  
TCAGCGAGCACTGAGCTGGCCCTACTTCCAGGATGGATGCATCACACTCAAGGACAGGAGCCTGGTCTTCCCTG  
ATGGCCTTTGGACCCAGGGCCTGACTTGAGCCACTCCTTCTTCCAGGACTCTGCGGGAGGCTGGGGCCCCATCTT  
GATCTTTGAGCCATTCTTCTGGGTGTGCTTTTTGGGACCATCACTGAGAGTCAGGAGTTTTACTGCCTGTAGCA  
ATGGCCAGAGCCTCTGGCCCCCTACCCACCATGGACCAGCCCCATTGGCCGAGCTCCTGGGGAGCTCCTGGGACCC  
TTGGCTATGAAAATGAGCCCTGGCTCCACCTGTTTCTGGAAGACTGCTCCCGGCCCGCCTGCCAGACTGATGA  
GCACATCTCTGCCCCCTCCTCTGTGTTCTGGGCTGGGGCCACCTTTGTGCAGCTTCGAGGACAGGAAAGGCCCC  
AATCTTGGCCACTGGCCGCTGAGCGCCCCCGAGCCCTGACTCCTGGACTCCGGAGGACTGAGCCCCCACCGGAAC  
TGGGCTGGCGCTTGGATCTGGGGTGGGAGTAACAGGGCAGAAATGATTAATAATGTTTGAGCAC

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**FIGURE 265**

MAQKGVLGPGQLGAVAILLYLGLLRSGTGAEGAEAPCGVAPQARITGGSSAVAGQWPWQVSITYEGVHVCGGSLV  
SEQWVLSAAHCFPSEHHKEAYEVKLGHAHQLDSEDAKVSTLKDIIHPPSYLQEGSQGDIALQLSRPITFSRYI  
RPICLPAANASFPNGLHCTVTGWGHVAPSVSLTPKPLQQLEVPLISRETCNCLYNIDAKPEEPHFVQEDMVCAG  
YVEGGKDACQGDSGGPLSCPVEGLWYLTGIVSWG DACGARNRPGVYTLASSYASWISKVTELQPRVVPQTQESQ  
PDSNLCGSHLAFSSAPAQGLLRPILFLPLGLALGLLSPWLSEH

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**FIGURE 266A**

CTGGGCCAGGCGCCGGGGCAGGAAGGGAGGCGGCCGCCGTGGCCATTCTTAAAGGCGCCCGAGTGTAGGCGACAG  
GCCGCTGACGGCGGGAAGGAAAATGAGTGAGTCTTTGGTTGTTTGTGATGTTGCCGAAGATTTAGTGGAAGCT  
GAGAAAGTTTCGTTTTTCGAAAGAAACGAACAACGCTGCTATTATAATGAAGATTGACAAGGATAAACGCCTGGT  
GGTACTGGATGAGGAGCTTGAGGGCATTTCACCAGATGAACCTTAAAGATGAACCTGACGACACAACCTCGCTT  
CATTGTGTATAGTTATAAATATCAACATGATGATGGAAGAGTTTCATATCCTCTGTGCTTTATTTTCTCCAGTCC  
TGTTGGATGTAAGCCTGAACAACAGATGATGTATGCTGGAAGTAAGAATAAGCTAGTCCAGACAGCTGAACTAAC  
CAAGGTATTTGAAATAAGAAATACCGAAGACCTAACTGAAGAATGGTTACGTGAGAACTTGGATTTTTTCACCTA  
ATGTGAACCTTCTGTGTTTCTAAAGTATTTATGTATTAACCTGACCATACTGGAATCAGACATAAATACTTATTTA  
TGCCTAAAAATGCACTGTTACTTACAGTTTGTTCCTGCAGTAAAGAAAAATTCTTCATTTGTGCAAAATTTGAA  
CAAAGAGGAAATCATCTTCATAGTAATGAAACTTTGTAAAGTGTTTCCTTATATTGGTAATTGTTAGGTGGACTA  
CTTTTCTCCAGGGACTTTTTGCACCTCTGTGACTAATTTCTATACTTATGGTTCGGAATTTGTTACTATTTACA  
GACACCATTGGAAAGTGGATATATTAGATTGTGAGAGACAACAGTTGCCTCCTTTTGACAAATACTGGATATTAG  
CAGTTTATTTATGAAATAGCGTATTATCACTTGTCAAATCATTGAAATTCATTTGGGGTCAAAGACTTGAGTGA  
CCCAGTATTGAGCCATGAATAATTTAGTGTAACCTGTATTACAAGTACATTGATGAATTTCTGTATCTTCTTTGGT  
TTCTGTATCTTTTAAATCAAGTCTAGAACTATGTTTCATCAGTCACCTCATTTTTAAGGTCGGGAGTTAGATTTT  
ATGATAGAATTATGACTGTTAGCTTTTCTCCTTATAGCATCTTAGTCTTAGAAATTGGTGGGTTGTAATAATCAA  
GGGCTTCATTCTTTTATGTCACTTCTAGACAGTTTGAATCTAGGTTAATAACACTTTATTTATAAAGCACCTC  
AATGTCCTGTGAACACTAATTATTTTAAATGTGTTAATACTGTGCCTTTGATTTGTTAGCTTTAAAGTTAGTTTA  
AGACTTTTACACTGCCAGTATTCCACATTTGGTGAAATTAATACTTTTTTAAAGGTTCCAAATAAAATAATTTTC  
TAATGTGTATATCTGAAATTTGTAATAAAATCAACTTCATATTTTAAAAATTCCAATCTGCTTGCATTGGTG  
TAATATATGGCAGTCGAGAGTTATAATTTGGGTATACTTGTGGTTAGTTTTGTGCCATAGGAAAAAATTATCTT  
AAACTTTGGCCATAGTTAATAACATTAACACTTCAATAGCAATCACATCTTATATCCTAAATGTCAGAAGATAT  
TCTGAACCTGGATGCCGTAATAGTTAACTAAACCAGTCTTGGTTAGATGATGGTACTCTTGGCATAAAGCGTAGGA  
TTCTGATATTTGGCATACTTGTAAAAACAAATACATAAGTAACCAATTGAACATTAATTTGATAATAGGTCTAGAG  
ACTCTAAAACTAACCAACTTGGTGAGTGTATTCTTATATTAAGAATATCTTAGTCATCTCAAACTAGCAAAA  
TTTAAATTTTGGCATGTTTTCCATTTCATATGTTCTTTGCATTTTATTTTGGAGTTTCTGTGAGAAGTAAAGATA  
GTTGGAATTTTGGCATATTGAATAGAACATCTTCTGTTCCCAACACTGTTTGGCTTCACTAATTTAGAAGTCAG  
GAAGCAATAGAAAAGTTGGAGATGAGGAAGTGCTAGAGTAGGTGTTTGTGTTTGGTTCTTGGAGGGAAGAGATTCTT  
TATTCCAATTTCCAGAGAGAAGAGAAAACCTACCCAGGAAGTTAAAAATCTTTAAACAGGTATTTTGATATTG  
GAGAATAACATGCATATAATTTCTGTAGGAATGCACATGTAATCCAAGTGAGTGAGAGTGTTTTTAATGTTTTTG  
AATGAAGGAAATGAGGTTTTGTTTACCTGTTTTGCAGCAGTAAGAGAACTAGTGCTGCAAGAATGTATTTTTT  
AATGAAGTTTCTTATTTTGTCTTGCATGTTTTAGTTTTGCTTATTTTTAAATTTGGAGGTCCTCCATAATGTCAG  
ATAATATTGACCTGCCATACGTTAGCACTCTTAGTTCCGCTACTGTCTTTAACAGGAGCAAAGAGCTGTGATAAA  
CCATGCTTTTTTGGAGCTTGTCTGACTCCTAATTAATAACATGTTTTTGGCAAGACAACAGATTGAGGTTAGAGGA  
TCAGTAGGACATTTTTATTCCATCTGTCTATGGGGAAATTTACAAATCCCGTGCTCTAAATGTTCTCAAACAT  
TTATATAGATTTCCCTTTTCATCTTACTAAATTTGCATTGTTCTTTTCAAGTATGTTTCGTATTTACTGTCTTTT  
TTTCTGCCATTTCCCAATAATAACTCCAGATTTTATAATTCCAGTTTTTACATTCCGTTATCTTTCTGGTACAA  
CCATTCCCATTACGCTTAAATCTGAGTCCTTTTTAGCAGCAACTTTTTTCTGGGATCCTCCTTCGTGGTCTTC  
TAAGTCAGTGTTAGTTTTGAAATTTTGGCCCTGCATAAGTTCTGCATAGCATCTAATGTCAAAATAGAACCAAC  
TGGAATCACAGTATTATTTAGTGTTTCCATGACAACAAAAATACATACGAAGAAAACTTCTCAGGTTACTA  
TGCTGAAATTTCAAAATGTCTGAGTTTTGAATAGTGATCACTTTGTTCTGGTATTGACGCAATTATATTAGGAAA  
AAAGTTGGTTGACTGTTTTTGTTTAATTGACTTCTAAATGTTCAAAATGTCTAGTTCTAAAGTTTACTAAATG  
CCTAGTGCAGTTAAACATACTCTTGTTTAAGTGTGTGTTGCTAAATTTTTTACTGTCACTACTAAATAATCTGTG  
TGGCAAAATGTGTGTCAGCACTTTTCCCTCCTTTTTTATCTCCTATTTTTCAGGAGTCAAATGTAGCCATAAACTG  
TATCCTTGTCTGACACTTTAGCTAAAAATTTCCAGTTAGGGGAGTTTTATTGCCAAATTAATTTGGCTGTTCCCC  
CCAACCCATATAGATATTAAGGAAGGTGTACTTAAAAATGTTTGGACTGCTTTTTAAACCTGAGCAATGTCATT  
AATCCATATGTGGACTAGTGATGAATAGATATTTTCATAAGAGTTTAAATGACTGATATTTGGTGGAAGTAGAGA  
GTAACCTCAATATTCTATCAATTCAAGTATTCTTACTATGGTTGCCTTTCCCTATTTGTTCAATAGACTGATAATA



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**FIGURE 266B**

CTGGTATTTATAGAGTTTGAGCCATTACAACTTTTGTGAGGATGTGTTTCAAACATTTCTGGACAAATCTTATTT  
TGTATTTCTGGAAGAATGTAGTAATCTTCTAGACCGCTTAAAACCAATGCTCCCAAGCTGAATATTCTTGAGCAA  
ATTTGTTTTTTTATTATGCCATTTGACATTTCAAATCAGTGCTCATATACAGTAAACTTGTGATAGAAATTGTATT  
TTATTGCTTTTTTGGATTATAATTCATATAAATATAATTACTTGAATATTGTTTGAGATCATTAACATGCCAGGGC  
AGTTCCCACTGATTTAGATGGTCCAAGATAATCTCATTTCAGGAGGCTTGAAACATTAATGGTTTAGTCTTGTA  
TTTTAACAGTTCTCTGTCATCGTTTAAACAAAACCAACAACCTGACACAACCTCCTTAAGCTGTGGTTTCAGTCTCTG  
CTAGTTCATATTGCATGTTTATTTTGGACAGTCTTTTGTTAAGCATGGTGCTTGTAAGTGGTTTAAATAAAATGTT  
AACATT

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**FIGURE 267**

MSESLVVCDAEDLVEKLRKFRFRKETNNAAIIMKIDKDKRLVVLDEELEGISPDELKDELPERQPRFIVYSYKY  
QHDDGRVSYPLCFIFSSPVGCKPEQQMMYAGSKNKLVTAE LTKVFEIRNTEDLTEEWLREKLGFFH

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**FIGURE 268A**

CCGGCTGCCTCTGCTGCAGTTTCAGAGCAACTTCAGGAGCTTCCCAGCCGAGAGCTTCAGGACGCCTTTCTGTCC  
CACTGGCCCAGTTGCCACAACAAACAACAGAGAAGACGGTGACCATGGGGGATGTGAAGCTGGTTGCCTCGTCAC  
ACATTTCCAAAACCTCCCTCAGTGTGGATCCCTCAAGAGTTGACTCCATGCCCCTGACAGAGGCCCTGCTTTCA  
TTTTGCCCCCTCGGAACCTCTGCATCAAAGAAGGAGCCACCGCCAAGTTTGAAGGGCGGGTCCGGGGTTACCCAG  
AGCCCCAGGTGACATGGCACAGAAACGGGCAACCCATCACCAGCGGGGGCCGCTTCTGTGGATTGCGGCATCC  
GGGGGACTTTTACGCTTGTGATTTCATGCTGTCCATGAGGAGGACAGGGGAAAGTATACCTGTGAAGCCACCAATG  
GCAGTGGTGTCTGCCAGGTGACAGTGGAGTTGACAGTAGAAGGAAGTTTTCGAAGCAGCTTGGTCAGCCTGTTG  
TTTCCAAAACCTTAGGGGATAGATTTTTCAGCTTCAGCAGTGGAGACCCGTCCTAGCATCTGGGGGGAGTGCCAC  
CAAAGTTTGTACCAAGCTGGGCCGAGTTGTGGTCAAAGAAGGACAGATGGGACGATTCTCTGTGAAGATCACTG  
GCCGGCCCCAACCGCAGGTACCTGGCTCAAGGGAAATGTTCCACTGCAGCCGAGTGCCCGTGTGTCTGTGTCTG  
AGAAGAACGGCATGCAGGTTCTGGAAATCCATGGAGTCAACCAAGATGACGTGGGAGTGTACACGTGCCTGGTGG  
TGAACGGGTTCGGGGAAGGCCTCGATGTCTGAGTCAACTTTCCATCCAAGGTTTGGACAGTGCCAATAGGTCAATTTG  
TGAGAGAAACAAAAGCCACCAATTTCAGATGTCTAGGAAAGAGGTGACCAATGTAATCTCAAAGGAGTCGAAGCTGG  
ACAGTCTGGAGGCTGCAGCCAAAAGCAAGAACTGCTCCAGCCCCCAGAGAGGTGGCTCCCCACCCTGGGCTGCAA  
ACAGCCAGCCTCAGCCCCCAAGGGAGTCCAAGCTGGAGTCATGCAAGGACTCGCCAGAACGGCCCCCGAGACCC  
CGGTCTTCAGAAGACTTCCAGCTCCATCACCTGCAGGCCGCAAGAGTTTCAGCCGGAACCAAGAGCACCAGGCC  
TGGGGGTCTTATCACCTTCTGGAGAAGAGAGGAAGAGGCCAGCTCCTCCCCGTCCAGCCACCTTCCCCACCAGGC  
AGCCTGGCCTGGGGAGCCAAGATGTTGTGAGCAAGGCTGCTAACAGGAGAATCCCCATGGAGGGCCAGAGGGATT  
CAGCATTCCCCAAATTTGAGAGCAAGCCCCAAAGCCAGGAGGTCAAGGAAAATCAAACCTGTCAAGTTTCAGATGTG  
AAGTTTCCGGGATTCCAAAGCCTGAAGTGGCCTGGTTCTTGGAAAGGCACCCCCGTGAGGAGACAGGAAGGCAGCA  
TTGAGGTTTATGAAGATGCTGGCTCCCATTACCTCTGCCTGCTGAAAGCCCCGACCAGGGACAGTGGGACATACA  
GCTGCACTGCTTCCAACGCCCAAGGCCAGGTGTCTGTAGCTGGACCCCTCCAAGTGGAAAGGCTTGCCGTGATGG  
AGGTGGCCCCCTCCTTCTCCAGTGTCTTGAAGGACTGCGCTGTTATTGAGGGCCAGGATTTTGTGTCTGAGTGTCT  
CCGTACGGGGGACCCAGTGCCCCGGATCACTTGGCTGTCTGAATGGGCAGCCCATCCAGTACGCTCGCTCCACCT  
GCGAGGCCGGCGTGGCTGAGCTCCACATCCAGGATGCCCTGCCGGAGGACCATGGCACCTACACCTGCCTAGCTG  
AGAATGCCTTGGGGCAGGTGTCTTGCAGCGCCTGGGTACCCGTCCATGAAAAGAAGAGTAGCAGGAAGAGTGAGT  
ACCTTCTGCCTGTGGCTCCCAGCAAGCCCACTGCACCCATCTTCTGTCAGGGCCTCTCTGATCTCAAAGTCATGG  
ATGGAAGCCAGGTCACTATGACTGTCCAAGTGTCTAGGGAATCCACCCCTGAAGTCATCTGGCTGCACAATGGGA  
ATGAGATCCAAGAGTCAGAGGACTTCCACTTTGAACAGAGAGGAACTCAGCACAGCCTTTGGATCCAGGAAGTGT  
TCCCGGAGGACACGGGCACGTACACCTGCGAGGCCTGGAACAGCGCTGGAGAGGTCCGCACCCAGGCCGTGTCTCA  
CGGTACAAGAGCCTCACGATGGCACCCAGCCCTGGTTTCATCAGTAAGCCTCGCTCAGTGACAGCCTCCCTGGGCC  
AGAGTGTCTCATCTCCTGCGCCATAGCTGGTGACCCCTTTCTACCGTGCAGTGGCTCAGAGATGGCAAAGCCC  
TCTGCAAAGACACTGGCCACTTTCAGAGTGTCTTCAAGAACGGGTTGGCGAATGCAGTTGCCAGGTGTCACTGATGC  
CCTGGCATGCCGGCCAGTATGAGATCCTGTCTCAAGAACC GGTTGGCGAATGCAGTTGCCAGGTGTCACTGATGC  
TACAGAACAGCTCTGCCAGAGCCCTTCCACGGGGGAGGGAGCCTGCCAGCTGCGAGGACCTCTGTGGTGGAGGAG  
TTGGTGTCTGATGGTGGTGGTAGTGACCGCTATGGGTCCCTGAGGCCTGGCTGGCCAGCAAGAGGGCAGGGTTGGC  
TAGAGGAGGAAGACGGCGAGGACGTGCGAGGGGTGCTGAAGAGGCGCGTGGAGACGAGGCAGCACACTGAGGAGG  
CGATCCGCCAGCAGGAGGTGGAGCAGCTGGACTTCCGAGACCTCTGGGGAAGAAGGTGAGTACAAAGACCCTAT  
CGGAAGACGACCTGAAGGAGATCCCAGCCGAGCAGATGGATTTCCGTGCCAACCTGCAGCGGCAAGTGAAGCCAA  
AGACTGTGTCTGAGGAAGAGAGGAAGGTGCACAGCCCCCAGCAGGTGATTTTCGCTCTGTCTGGCCAAGAAGG  
GGACTTCCAAGACCCCCGTGCCTGAGAAGGTGCCACCGCCAAAACCTGCCACCCCGGATTTTCGCTCAGTGTGG  
GTGGCAAGAAGAAATTACCAGCAGAGAATGGCAGCAGCAGTGGCAGACCCTGAATGCCAAGGCAGTGGAGAGTT  
CCAAGCCCCCTGAGCAATGCACAGCCTTCAGGGCCCTTGAACCCGTGGGCAACGCCAAGCCTGCTGAGACCCTGA  
AGCCAATGGGCAACGCCAAGCCTGCCGAGACCCTGAAGCCCATGGGCAATGCCAAGCCTGATGAGAACCCTGAAAT  
CCGCTAGCAAAGAAGAACTCAAGAAAGACGTTAAGAATGATGTGAAGTGAAGAGAGGCCATGCAGGGACCACAG  
ATAATGAAAAGAGATCAGAGAGCCAGGGGACAGCCCCAGCCTTCAAGCAGAAGCTGCAAGATGTTTCATGTGGCAG  
AGGGCAAGAAGCTGTCTCCAGTGCCAGGTGTCTTCTGACCCCCAGCCACCATCATCTGGACGCTGAACGGAA  
AGACCCTCAAGACCACCAAGTTCATCATCTCTCCAGGAAGGCTCACTCTGCTCCGTCTCCATCGAGAAGGCAC

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**FIGURE 268B**

TGCCTGAGGACAGAGGCTTATACAAGTGTGTAGCCAAGAATGACGCTGGCCAGGCGGAGTGCTCCTGCCAAGTCA  
CCGTGGATGATGCTCCAGCCAGTGAGAACACCAAGGCCCCAGAGATGAAATCCCGGAGGCCCAAGAGCTCTCTTC  
CTCCCGTGCTAGGAACTGAGAGTGATGCGACTGTGAAAAAGAAACCTGCCCCAAGACACCTCCGAAGGCAGCAA  
TGCCCCCTCAGATCATCCAGTTCCTTGAGGACCAGAAGGTACGCGCAGGAGAGTCAGTGGAGCTGTTTGGCAAAG  
TGACAGGCACTCAGCCCATCACCTGTACCTGGATGAAGTTCGAAAGCAGATCCAGGAAAAGCGAGCACATGAAGG  
TGGAGAACAGCGAGAATGGCAGCAAGCTCACCATCCTGGCCGCGCGCCAGGAGCACTGCGGCTGCTACACACTGC  
TGGTGGAGAACAAGCTGGGCAGCAGGCAGGCCAGGTCAACCTCACTGTCGTGGATAAGCCAGACCCCCAGCTG  
GCACACCTTGTGCCTCTGACATTGCGAGCTCCTCACTGACCCTGTCCTGGTATGGCTCCTCATATGATGGGGGCA  
GTGCTGTACAGTCCTACAGCATCGAGATCTGGGACTCAGCCAACAAGACGTGGAAGGAAGTAGCCACATGCCGCA  
GCACCTCTTTCAACGTCCAGGACCTGCTGCCTGACCACGAATATAAGTTCCGTGTACGTGCAATCAACGTGTATG  
GAACAGTGAGCCAAGCCAGGAGTCTGAACTCACAACGGTAGGAGAGAAACCTGAAGAGCCGAAGGATGAAGTGG  
AGGTGTCAGATGATGATGAGAAAGGAGCCCCGAGGTTGATTACCGGACAGTGACAATCAATACTGAACAAAAAGTAT  
CTGACTTCTACGACATTGAGGAGAGATTAGGATCTGGGAAATTTGGACAGGTCTTTCGACTTGTAGAAAAAGAAA  
CTCGAAAAGTCTGGGCAGGGAAGTTCTTCAAGGCATATTAGCAAAAAGAGAAAGAGAATATCCGGCAGGAGATTA  
GCATCATGAACTGCCTCCACCACCTAAGCTGGTCCAGTGTGTGGATGCCTTTGAAGAAAAGGCCAACATCGTCA  
TGGTCTCGGAGATCGTGTGAGGAGGGGAGCTGTTTGAGCGCATATTGACGAGGACTTTGAGCTGACGGAGCGTG  
AGTGCATCAAGTACATGCGGCAGATCTCGGAGGGAGTGGAGTACATCCACAAGCAGGGCATCGTGCACCTGGACC  
TCAAGCCGGAGAACATCATGTGTGTCAACAAGACGGGCACCAGGATCAAGCTCATCGACTTTGGTCTGGCCAGGA  
GGCTGGAGAATGCGGGGTCTCTGAAGGTCCTCTTTGGCACCCAGAAATTTGTGGCTCCTGAAGTGATCAACTATG  
AGCCCATCGGCTACGCCACAGACATGTGGAGCATCGGGGTCTCTGCTACATCCTAGTCAGTGGCCTTTCCCCCT  
TCATGGGAGACAACGATAACGAAACCTTGGCCAACGTTACCTCAGCCACCTGGGACTTCGACGACGAGGCATTG  
ATGAGATCTCCGACGATGCCAAGGATTTTCATCAGCAATCTGCTGAAGAAAGATATGAAAAACCGCTGGACTGCA  
CGCAGTGCCTTCAGCATCCATGGCTAATGAAAGATACCAAGAACATGGAGGCCAAGAACTCTCCAAGGACCGGA  
TGAAGAAGTACATGGCAAGAAGGAAATGGCAGAAAACGGGCAATGCTGTGAGAGCCATTGGAAGACTGTCTCTA  
TGGCAATGATCTCAGGGCTCAGTGGCAGGAAATCCTCAACAGGGTCACCAACCAGCCCGCTCAATGCAGAAAAAC  
TAGAATCTGAAGAAGATGTGTCCCAAGCTTTCCTTGAGGCTGTTGCTGAGGAAAAGCCTCATGTAAACCCCTATT  
TCTCTAAGACCATTTCGCGATTTAGAAGTTGTGGAGGGAGTGCTGCTAGATTTGACTGCAAGATTGAAGGATACC  
CAGACCCCGAGGTTGTCTGGTTCAAAGATGACCAGTCAATCAGGGAGTCCCGCCACTTCCAGATAGACTACGATG  
AGGACGGGAACTGCTCTTTAATTATTAGTGATGTTTGCAGGGATGACGATGCCAAGTACACCTGCAAGGCTGTCA  
ACAGTCTTGGAGAAGCCACCTGCACAGCAGAGCTCATTGTGGAACGATGGAGGAAGGTGAAGGGGAAGGGGAAG  
AGGAAGAAGAGTGAACAAAGCCAGAGAAAAGCAGTTTCTAAGTCATATTAAGGACTATTTCTCTAAACTCA

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**FIGURE 269**

MGDVKLVASSHISKTSLSVDP SRVDSMPLTEAPAFILPPRNLCIKEGATAKFEGRVRGYPEPQVTWHRNGQPITS  
GGRFLDCGIRGTFSLVIHAVHEEDRGKYTCEATNGSGARQVTVELTVEGSFAKQLGQPVVSKTLGDRFSASAVE  
TRPSIWGECPPKFATKLGRVVVKEGQMGRFSCKITGRPQPQVTWLKGNVPLQP SARVSVSEKNGMQVLEIHGVNQ  
DDVGVTCLVNVNGSGKASMSAELSIQGLDSANRSFVRETKATNSDVRKEVTNVISKESKLDSEAAAKSKNCSSP  
QRGGSPPPWAANSQPQPPRESKLESCKDSPTAPQTPVLQKTSSSITLQAARVQPEPRAPGLGVLSPSGEERKRPA  
PPRPATFPTRQPGLSQDVVSKAANRRIPMEGQRDSAFPKEFKPQSQEVKENQTVKFRCEVSGIPKPEVAWFLE  
GTPVRRQEGSIEVYEDAGSHYLCLLKARTDSGTYSCTASNAQQQVSCSWTLQOVERLAVMEVAPSFSSVLKDCAV  
IEGQDFVLQCSVRGTPVPRITWLLNGQPIQYARSTCEAGVAELHIQDALPEDHGTYTCLAENALGQVSCSAWVTV  
HEKKSSRKSEYLLPVAPSKPTAPIFLQGLSDLKVMDSQVTMTVQVSGNPPPEVIWLHNGNEIQESEDFFHEQRG  
TQHSWLWIEVFPEDTGTYTCEAWNSAGEVRTQAVLTVQEPHDGTQPFISKPRSVTASLGQSVLISCAIAGDPFP  
TVHWRDGLKALCKDTGHFEVLQNEVDFTLVLLKKVQPWHAQYIEILLKNRVGECSCQVSLMLQNSSARALPRGREP  
ASCEDLCGGGVGADGGGSDRYGSLRPGWPARQGQWLEEDGEDVRGVLKRRVETRQHTEEAIRQQEVEQLDFRDL  
LGKKVSTKTLSEDDLKEIPAEQMDFRANLQRQVKPXTVSEEERKVHSPQQVDFRSVLAKKGTSKTPVPEKVPKPK  
PATPDFRSVLGGKKKLPAENGSSSAETLNAKAVESSKPLSNAQPSGPKPVGNAPKPAETLKPMGNAKPAETLKPM  
GNAKPDENLKSASKEELKKDVKNVDNCKRGHAGTTDNEKRSESQGTAPAFKQKLQDVHVAEGKLLLLQCQVSSDP  
PATIIWTLNGKTLKTTKFIILSQEGLSCSVSIEKALPEDRGLYKCVAKNDAGQAECSCQVTVDDAPASENTKAPE  
MKSRRPKSSLPPVLGTESDATVKKKPAKTPPKAAMPQIIQFPEDQKVRAGESVELFGKVTGTQPIITCTWMKFR  
KQIQESEHMKVENSENGSKLTIILARQEHCGCYTLLVENKLGSRQAQVNLTVDKPDPPAGTPCASDIRSSSLTL  
SWYGSSYDGGSAVQSYSIEIWD SANKTWKELATCRSTS FNVQDLLPDHEYKFRVRAINVYGTSEPSQESELTTVG  
EKPEEPKDEVEVSDDDEKEPEVDYRTVTINTEQKVSDFYDIEERLGSGKFGQVFRLEVEKKTRKVWAGKFFKAYSA  
KEKENIRQEISIMNCLHHPKLVCVDAFEKANIVMVLEIVSGGELFERIIDEDFELTERECIKYMRQISEGVEY  
IHKQGI VHLDLKPENIMCVNKTGTRIKLIDFGLARRLENAGSLKVLFGTPEFVAPEVINYEPIGYATDMWSIGVI  
CYILVSGLSPFMGDNDNETLANVTSATWDFDDEAFDEISDDAKDFISNLLKKDMKNRLDCTQCLQHPWLMKDTKN  
MEAKKLSKDRMKKYMARRKWQKTGNVRAIGRLSSMAMISGLSGRKSSTGSPTSPLNAEKLESEEDVSQAFLEAV  
AEEKPHVKPYFSKTIRDLEVEGSAARFDCKIEGYPDPEVWVFKDDQSIRESRHFQIDYDEDGNC SLIISDVCGD  
DDAKYTCKAVNSLGEATCTAELIVETMEEGEGEGEEEE

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**FIGURE 270A**

CACTTACTACAGATGGGTGCTAATGTCCACGCTCGTGATGATGGAGGTCTCATCCCGCTTCATAATGCCTGTTCT  
TTTGGCCATGCTGAGGTTGTGAGTCTGTTATTGTGCCAAGGAGCTGATCCAAATGCCAGGGATAACTGGAACAT  
ACACCTCTGCATGAAGCTGCTATTAAAGGGAAGATCGATGTGTGCATTGTGCTGCTGCAGCACGGAGCTGACCCA  
AACATTCCGAACACTGATGGGAAATCAGCCCTGGACCTGGCAGATCCTTCAGCAAAAGCTGTCCTTACAGGTGAA  
TACAAGAAAGACGAACTCCTAGAAGCTGCTAGGAGTGGAATGAAGAAAACTAATGGCTTTACTGACTCCTCTA  
AATGTGAATTGCCATGCAAGTGATGGGCGAAAGTCGACTCCTTTACATCTAGCAGCGGGCTACAACAGAGTTCGA  
ATAGTTCAGCTTCTTCTTCAGCATGGTGCTGATGTTTCATGCAAAAGACAAAGGTGGACTTGTGCCTCTTCATAAT  
GCATGTTTCATATGGACATTATGAAGTCACAGAACTGCTACTAAAGCATGGAGCTTGTGTTAATGCCATGGATCTC  
TGGCAGTTTACTCCACTGCACGAGGCTGCTTCCAAGAACCGTGTAAGTCTGCTCTTTGTTACTTAGCCATGGC  
GCTGATCCTACGTTAGTCAACTGCCATGGCAAAAGTGCTGTGGATATGGCTCCAACCTCCGGAGCTTAGGGAGAGA  
TTGACTTATGAATTTAAAGGTCATTCTTTACTACAAGCAGCCAGAGAAGCAGACTTAGCTAAAGTTAAAAAACA  
CTCGCTCTGGAAATCATTAAATTTCAAACAACCGCAGTCTCATGAAACAGCACTGCCTGTGCTGTGGCCTCTCTG  
CATCCCAAACGTAAACAAGTGACAGAATTGTTACTTAGAAAAGGAGCAAATGTTAATGAAAAAATAAAGATTTC  
ATGACTCCCTGTCATGTTGCAGCCGAAAGAGCCCATAAATGATGTTCATGGAAGTCTGCATAAGCATGGCGCCAAG  
ATGAATGCACTGGACACCCTTGGTCAGACTGCTTTGCATAGAGCCGCCCTAGCAGGCCACCTGCAGACCTGCCGC  
CTCCTGCTGAGTTACGGCTCTGACCCCTCCATCATCTCCTTACAAGGCTTCACAGCAGCACAGATGGGCAATGAA  
GCAGTGCAGCAGATTCTGAGTGAGAGTACACCTATACGTACTTCTGATGTTGATTATCGACTCTTAGAGGCATCT  
AAAGCTGGAGACTTGGAACTGTGAAGCAACTTTGCAGCTCTCAAAATGTGAATTGTAGAGACTTAGAGGGCCGG  
CATTCCACGCCCTTACACTTCGCAGCAGGCTACAACCGCGTGTCTGTTGTAGAGTACCTGCTACACCACGGTGCC  
GATGTCCATGCCAAAGACAAGGTTGGCTTGGTGCCCTTCATAATGCCTGTTTCATATGGACACTATGAGGTGGCT  
GAGCTTTTAGTAAGGCATGGGGCTTCTGTCAATGTGGCGGACTTATGGAAATTTACCCCTCTCCATGAAGCAGCA  
GCTAAAGGAAAGTATGAAATCTGCAAGCTCCTTTTAAACATGGAGCAGATCCAACATAAAAGAACAGAGATGGA  
AATACACCTTTGGATTGGTAAAGGAAGGAGACACAGATATTAGGACTTACTGAAAGGGGATGCTGCTTTGTTG  
GATGCTGCCAAGAAGGGCTGCCTGGCAAGAGTGCAAGCTCTGTACCCAGAGAATATCAACTGCAGAGACACC  
CAGGGCAGAAATTCACCCCTCTGCACCTGGCAGCAGGCTATAATAACCTGGAAGTAGCTGAATATCTTCTAGAG  
CATGGAGCTGATGTTAATGCCCAGGACAAGGGTGGTTTAATTCCTCTTCATAATGCGGCATCTTATGGGCATGTT  
GACATAGCGGCTTTATTGATAAAATACAACACGTGTGTAAATGCAACAGATAAGTGGGCGTTTACTCCCTCCAT  
GAAGCAGCCCAGAAAGGAAGGACGCAGCTGTGCGCCCTCCTCCTAGCGCATGGTGCAGACCCACCATGAAGAAC  
CAGGAAGGCCAGACGCCTCTGGATCTGGCAACAGCTGACGATATCAGAGCTTGTGCTGATAGATGCCATGCCCCA  
GAGGCCTTACCTACCTGTTTTAAACCTCAGGCTACTGTAGTGAGTGCTCTCTGATCTCACCAGCATCCACCCCC  
TCCTGCTCTCGGCTGCCAGCAGCATAGACAACCTCACTGGCCCTTTAGCAGAGTTGGCCGTAGGAGGAGCCTCC  
AATGCAGGGGATGGCGCCGCGGGAACAGAAAGGAAGGAAGGAGAAGTTGCTGGTCTTGACATGAATATCAGCCAA  
TTTCTAAAAAGCCTTGGCCTTGAACACCTTCGGGATATCTTTGAAACAGAACAGATTACACTAGATGTGTTGGCT  
GATATGGGTCATGAAGAGTTGAAAGAAATAGGCATCAATGCATATGGGCACCGCCACAAATTAATCAAAGGAGTA  
GAAAGACTCTTAGGTGGACAACAAGGCACCAATCCTTATTTGACTTTTCACTGTGTTAATCAGGGAACGATTTTG  
CTGGATCTTGCTCCAGAAGATAAAGAATATCAGTCAGTGGAAGAAGAGATGCAAAGTACTATTGAGAACACAGA  
GATGGTGGTAATGCTGGCGGCATCTTCAACAGATACAATGTCAATTCGAATTCAAAAAGTTGTCAACAAGAAGTTG  
AGGGAGCGGTTCTGCCACCGACAGAAGGAAGTGTCTGAGGAGAATCACAACCATCACAATGAGCGCATGTTGTTT  
CATGGTTCTCCTTTTCAATTAATGCCATTATTCATAAAGGTTTGTATGAGCGACATGCATACATAGGAGGAATGTTT  
GGGGCCGGGATTTATTTTGTGAAAACCTCCTCAAAAAGCAACCAATATGTTTATGGAATTGGAGGAGGAACAGGC  
TGCCCTACACACAAGGACAGGTCATGCTATATATGTCACAGACAAATGCTCTTCTGTAGAGTGACCCTTGGGAAA  
TCCTTTCTGCAGTTTAGCACCATGAAAATGGCCACGCGCCTCCAGGGCACCACCTCAGTCATTGGTAGACCGAGC  
GTCAATGGGCTGGCATAATGCTGAATATGTCATCTACAGAGGAGAACAGGCATACCCAGAGTATCTTATCACTTAC  
CAGATCATGAAGCCAGAAGCCCCCTCCCAGACCGCAACAGCCGCAGAGCAGAAGACCTAGTGAATGCCTGCTGGT  
GAAGGCCAGATCAGATTTCAACCTGGGACTGGATTACAGAGGATTGTTTCTAATAACAACATCAATATTCTAGAA  
GTCCCTGACAGCCTAGAAATAAGCTGTTTGTCTTCTATAAAGCATTGCTATAGTGATGAATAGTATGAGTAACTG  
ATACATACTCAACTGCTACTGTTCCTTTGAGGAAATGTTTACAGGGGCGGCTTTTAACATATCTCAGGCTCAT  
TTTCATTGCAATTATCCATTTCTAAAAACAAGATTGCTTCGATCTAGACTTGGAAATGGAAAAATAAGAAAACCAAT

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**FIGURE 270B**

GCTTTTTCAAATGTTTACAATTCACACACTACATTTGTTTTGTTATGCATGACGTGTCTATAACAAATATACACA  
TACGACAGGCAACAAGCTTGTTTTTGATTTGCCAGACATGCATCATTGGCTATTGTTTTGTTTGTGTTTTT  
TTGTGTTTTTTGGGTTACTTTGAAAATGAGCCAGAGCCTTCTTGAGGATATTTTGCACAAAGTCACGCTGACAAA  
ATCATTAGCAGTGCAACCCAAGCTTCTGGCTGAGCAAGATTCAGTTTCCACTTTTTTAAATTTTTTATTTTGCT  
CTGTAGCTGCACCTTCTCGTTATCATAAATTGAGATGAAAAGGAAAAACATCAAGTTTTAGTACCTTTTTATGAA  
TTGGCCTATCTTACAAGAGAAGGGCACAAACACCAACCTGACTTAGGAACGCCTAAATTCAGAGAAGTCAAAGCC  
GGTGAAGGCCACTTGCTCTTTCCAACACAAGCCTGCCACAGAGGTCTTCGGGACAGTACTGGAGATGCAGGTTGA  
CACGGGCTTGAGTTCCAAGGTGAAAAAAGTGGGGAGGCTGTGAAGGAAGAGCTGCATTAAGGAGGGTGAGGAGCG  
TGTGGTTCTGTATCATGGCAGCCCCAATGGATCCAGGGGATGCCTCCAAAAATACATGCTTCCCTTCCCTTAAT  
CTGTACTGTTGGGATTGTTACCCCTCCAAATTAGCTGCCTTATTTCAAAGTCAGTGAAATTACTGCACCTTGATG  
AGGGTCACAAAAATACCACTTGATTGTTTCTTTAGTTGAGAATGCTGGGATTCAGACTCGAATAGTGGATAGATA  
CACACAAATGCAAGGACTTTTTTGTCTTACTCCAGATTTGGGGTTTATTTGAGTGGCATGCTTCAAATAGTTCAT  
AAAGATCCTTGCAATTAATTTCTGAACATTTCTTCAAACCTTCTTAGTGTGTTTAGACAAGGAGAACAAAAATTG  
AAACCAAAGCCCTTTCTGTTATTTTTTCAATGAAGGTGAGAAAGAAATACCATACAATTTTCTTTGTGAAATTAC  
TGTTTATTTTCATCAACATTTACCAAGTGCCATTGACATTTATAAAAAAATGATCCTTTATAGTTCTTACACTT  
GCCCTTTTACCTTAACTGAATATGAATTGAGTGCCTAACTTATTTACTTGATATACTGTGCATCTACTCTGCT  
TTGAAGCGAAAGAAATATAAACACGAGGAGGAATAGGAAAGACAGTGTGACACAACTTGCCATTGCAATTCAA  
GCCCTGAAACGATGGGTTTAATGCAAGGTGATTAAGCTGTGACCTCCTTTAATCTCCTGAAGCAAAATAAAATG  
GTTACATGCAAACTTCTAGAAATACACTCTTAAAAATATATACATTTTGCTTTGATTTTGGCTTCAACCCAGTGC  
TGGAAC TAGGCATCCAGACTAGTTTGAATGTTTGTAGCTGAATTTTTATGGGTCTCCTCAAATTAATCGAGAATT  
AGCCTCAGTTGTTGCTTCTTTTGAAGTTTCAGTGACCCAAAGCTGGGTGTTTGTGTCTTGGCTACTTGTTTAATAG  
CACTAGAATTCCAGGTGAAGCTTTGAGAGTTGATATTCATTAAGAGGGCTTTTTTCCCTTCTTTCTCTCTCTT  
TTGCTGTAACAAAGGGTTGAAGAAATTGCCATCTGTGTAGTTTTCAGTAGCTGTCAAGTGTGTCTTACTTACCTT  
CCCCCAGACGTAGTTTAAATGGTAAACACAGCTGTGATTTTGTAGTTAAGTAAAAGAGTTAATATGATATAGATA  
TGGAAAGCTTTATGGCTTCATTAATAAGATAAAACCACTACCTAAGTGTGTTGTATGTTGTTTCCATCACTACTAA  
CTAGATGAATGGATGCGCCAGTTTTCATCTTGGTCTTACACTTGAGAAGTTAACTGTGGTTTCAGTATTTAAAC  
TGCCAGTGTTATACGTCTCATGCTCTGTGTGCCAGGTGAAGGTACTGTGTAAGGAAGACATTTGCGGTGCTTCTT  
GTCTTATAATGATTCAAGTATATAGTAGTTCTTGAAAGAGTGTGCATATATTACTCATCTGCTTAAGAGAGTGGG  
TTAATGGATATATCAGAGGAGCCAAATACATTTTTTTTCAAGACTTGAAAACCAAAGGTATCATGAGTGCCTCA  
AAAGTTAGGACAAGTTTATTACATTTGGGATTTTTCATCTGTAGCCGTATGAAGAACCCTTTCCAATATAAAGCA  
TGGCATTAAATTAGGCTGAAGTCTTTTATTTTTTGTATATGTACTATATAGAAATACTAGCAAGTTAGGATCATC  
CAATATGGCCTACCCCGAAATGGCCCTCTGTTTCCCTAACACATGGAAGAAAGAAATCTGAACGTCTCCACCGG  
CTCTACCCGAGTTCCAAAATAAAGGGCTTCTCCAGACCTGATGGTTCCAGTTTACCTGCTGTTGGCCTGCTGGA  
TACTTGACTCAGGCATAAATTAAGTGCCCTGGTCCCGAAGTTTCTCCAGTATTTGACCTCCTTCCCTCTTTCTT  
AAATTACTAGTCTGGAATTAATAATTAGCTCCAGCAATGACCTTTGACTCCATTCAATTTCTCCTCATCTTGGGTC  
TTAAAAAAGGAGACCAGATACCTCCTAGCTTTTGTATCACAACCAGGAATGGGTATTAGGCCTCATGCGCTTTGC  
TCAGAACACTGCCGCTTTGTTAACAATGACAGCATGGAACCCAGAGTTTGTATTCGATGCAAAATAACAGCAGT  
GCAACCAGGATTCTTGTTTTCTTTCTTCTTGGAGTTTGAATTTCTAGCTTTTCAAGCAGCATAAGTAGAAT  
CAACATTAGGATGTTTTCATGAAATAGCATCCTTATACTTCTTTGAGCTTGATGTTAGTGGCTAGACTGATTTCC  
CTTTGCTCTCAAAATACAAAGTGCATTGAAGTATACAGAGAAATGCCTGAATATGGCAAGCAAATAATGTAGATT  
AACATTCTATTATTGTATCCGTTTTACAAAAATAAAATTTTGATATATGCCGGAGAACGGCATTAGAATGCAAT  
AAGTTGTCTAGGTTTTTCTGTTTCAGTGTCTCTCCAATGGCACGAAGGGTTATTGGGCATTGTCCCCACCCCG  
CCTTTTTAACATGTGCACTATCTGGATTCTGTAAATGGCCTTGCAACAGAAGTGGTGTGTTTTTCAAGCACC  
TTTCCCCCATTGTATCCGAATCCCTCTTGTGTGATATCTGTGACAAATACCATTCTTCTGTGTTTTCTGTTGGG  
ACTAATTGTCTCACGTAAAGCTATAGACCTTACTAATTTGGCAGGTATTCAAACACTGCCATTAAGATAGGATTTT  
ATGTCAGATACGTATTTAAAGAGTAAAGTCAAATTTGTTTAAATGTGATCAGTACAGAGAGTGAAGAAAGTA  
ATTGTGAAAGTGATGTTTGAAGTATTGTACACATCTAGCATATGGAAGCAAATGCACTCGAAACTACTATTCT  
AGAACATGAGGCTTCTTCAGCAACTTGTGCACTCTGCCATTAATAAATTAATTTTTTCCCTCTAGAAAGCCTTA

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**FIGURE 270C**

ACTATGGCGGAAACTTTTTAACCTTTTATATTTTAAATAAAACATTGTAGTCCCATTTCTTAGTGTTTGAAA  
GGTGTGTCAGTGAGTCGGCCATGTCTCCATGTGTTTCAGACCTGTTTCATCTTATTTTATGATGGTATATTTTCATA  
AGTAATATTCCCTTACATGCAATGGAGCTGATTAAAATTAATCCATTTCAATTTCTCCATATTGGAACCTCCTCA  
GCTACCAGATTTCTGGTTTGGAGAAGTGCTGGAAAGATTTCAAAGCCTATTCAGTTGTGTATGTGGGGATACGAC  
AGCAACTGTGATACCTTGTAGAAATATGAGTGATATGCAAGCTGTGTTTTTAATTGTTTTAAATGTAAATTATG  
GTTATGCTAAAGTGAAAACCTAGAGGAAGCTAATGATTTTATATACTTTGCACGACCAAATATGGTCGTAGTATG  
ACGAGTTTTATACATTGCCAGAGAGTTCTGCCTCCTCTGAAATAACATTGCGACTGTAGATTGCATTTCCGGCTTT  
TCCTCCTTTTACATTCTTTTTTGCTTTACACTTCACGTCTTCGCACCTGCCCTACCTCCCATCCTTTCAAAGAGG  
TTTCTTTTACGTTCCAGAATTCAGATTGTTCTGTGATTTCTTTTACATCAGTCTACCCATTTCTGCAGGCAGCCC  
TGAAAGCCCTTGTGTTGATTAGAGTGTTTGCAGAGAAATGCAGTTGAACCCTGGTAGTGGGGTGTCCCTCACAC  
ACCCGCGCACCCCTCCCAAAGTTCAGGATGAAAGGCTAGAAAACCCATTCAAAGTTAGGAAAGAACACAGATCTT  
TGAGGCCGATAGCCTAGACCTAGAAGATGACCTTGAGTATGTAAACATTGTCTCCGTGACACAAAACACTGAAAC  
TCTTCAATGTGCATATAACACCTGCTTCTGCTCCCATTGTTTCAAGCTCATCTTATCTTTGTAGTAGTAATGTTTG  
TCTTTGATACCTACAACTAAAAAGGTACTTTTATCAAGGTTTCTCAAAACATTTACAAAACCAGCTTTGAGAAA  
ATGTTATGTTGCCTGGCAACAGCACTCGGAGTAGTAATTGTGTTTTCTCATTGTGATGTTGGTCTGTGTGAGCAA  
CCAGTGTAGTGACTCTTTGGTTTATTATTCGTGTTGTTTTATTTTTAGTCTCTGTGTGACCCAAACAGTGGCAGG  
GGTTACAACCCCTCTCCTTTCTTTTTTGTATTTATCTATTTGTAGGATTGTGAGATCAAGTACAAGATGCCAG  
TTAAGTTTGAATTTTCAAGAGAAACAATTTTACGTTAAGAATGTTTCAATGCAATATTTGGCATATATTTACAGTAAA  
AGCATTCAATTTTGTCTGAAATTCAAATTTAACTGAGCAIGCTGGTTTTTCTCATTGTTGGTTTTTCTAAATC  
TGGCAATCCTACAGCTGTGGTCATGGGAAATCACCTACAGCATGTTAAAGTCCTCTAGTCATCATCTCGTCACCT  
GAAATGGAAGTCCTTTTTCCCTCACCTCCACTTCTTTCCAAAGGAGGGCATCAAGGAACCTAACCTGCCTGCCT  
GGTGGGTTTCTATTTAAGACATCTTTGTGATTATATTTAACCTGCAATTGTGCTTTGGCTTAATGTCTAGCTCAC  
TGTAATTGTAAATGATTAATATTCAATAAAACCATTTTAAAGTAAAAAAA



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**FIGURE 271**

TCTTGACTCACGCCTTCGCCGTAGCATCTTTCGCAGCGGACCGAAGAGAAGAAAAGTAGGCCAGAGCCGAACCTCT  
CTTCCTGCCAAGATGTCTATTGGTGTGCCGATTAAAGTACTGCATGAGGCCGAGGGCCACATTGTGACATGTGAG  
ACGAACACCGGTGAGGTATATCGGGGGAAGCTCATTGAAGCAGAGGACAACATGAACTGCCAGATGTCCAACATC  
ACAGTCACATACAGAGATGGCCGAGTGGCACAGCTGGAGCAGGTATACATCCGTGGCAGCAAAATCCGCTTTCTG  
ATTTTGCCTGACATGCTGAAGAACGCACCCATGTTAAAGAGCATGAAAAATAAAACCAAGGCTCAGGGGCTGGC  
CGAGGAAAAGCTGCCATTCTCAAGGCCCAAGTGGCCGCAAGAGGAAGAGGACGTGGAATGGGACGTGGAAACATC  
TTTCAAAAGCGAAGATAAATTTTCTAAGTTGAACAGAACTTTGTCCTTTTTTCTTTCAGGTTATCTGAGTTCATTG  
GAGTGGGTGCTTGTGCATATATCTAGGTATCTTTTGCCATCTTCTCTTTAGATCAGGGGAAATGTTTAAGCTAA  
ATAAATCTGGGGGGTTTTTTGTTCTG

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**FIGURE 272**

MSIGVPIKVLHEAEGHIVTCETNTGEVYRGKLI EAEDNMNCQMSNITV TYRDGRVAQLEQVYIRGSKIRFLILPD  
MLKNAPMLKSMKNKNQGS GAGRGKAA ILKAQVAARGRGRGMGRGNIFQKRR

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**FIGURE 273**

AGCTTTGGGGTTGTCCCTGGACTTGTCTTGGTTCCAGAACCTGACGACCCGGCGACGGCGACGTCTCTTTTGA  
AAAAGACAGTGTCCAGTGCTCCAGCCTAGGAGTCTACGGGGACCGCCTCCCGCGCCGCCACCATGCCCAACTTCT  
CTGGCAACTGGAAAATCATCCGATCGGAAAACCTCGAGGAATTGCTCAAAGTGCTGGGGGTGAATGTGATGCTGA  
GGAAGATTGCTGTGGCTGCAGCGTCCAAGCCAGCAGTGGAGATCAAACAGGAGGGAGACACTTTCTACATCAAAA  
CCTCCACCACCGTGCGCACCACAGAGATTAACTTCAAGGTTGGGGAGGAGTTTGAGGAGCAGACTGTGGATGGGA  
GGCCCTGTAAGAGCCTGGTGAAATGGGAGAGTGAGAATAAAATGGTCTGTGAGCAGAAGCTCCTGAAGGGAGAGG  
GCCCCAAGACCTCGTGGACCAGAGAACTGACCAACGATGGGGAAGTATCCTGACCATGACGGCGGATGACGTTG  
TGTGCACCAGGGTCTACGTCCGAGAGTGAAGTGGCCACAGGTAGAACCGCGGCCGAAGCCCACCCTGGCCATGCT  
CACCGCCCTGCTTCACTGCCCCCTCCGTCCCACCCCTCCTTCTAGGATAGCGCTCCCCCTTACCCCACTCACTTC  
TGGGGGTCACTGGGATGCCTCTTGCAGGGTCTTGCTTTCTTTGACCTCTTCTCTCCTCCCCCTACACCAACAAAGA  
GGAATGGCTGCAAGAGCCCAGATCACCCATTCCGGGTTCCTCCCCGCCTCCCCAAGTCAGCAGTCCTAGCCCCA  
AACCAGCCCAGAGCAGGGTCTCTCTAAAGGGGACTTGAGGGCCTGAGCAGGAAAGACTGGCCCTCTAGCTTCTAC  
CCTTTGTCCCTGTAGCCTATACAGTTTAGAATATTTATTTGTTAATTTTATTAAATGCTTTAAAAAA

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**FIGURE 274**

MPNFSGNWKIIRSENFELLKVLGVNVMLRKIAVAAASKPAVEIKQEGDTFYIKTSTTVRTTEINFKVGEEFEEQ  
TVDGRPCKSLVKWESENKMVCEQKLLKGEGPKTSWTRELTNDGELILMTADDVVCTRYYVRE

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**FIGURE 275A**

AAGGTGTTGGAGAGAAAACCTTCAGAAAGGAACAGGAAACCTGCCGGGAGCGGGCGGGCTGCCGGCTTCTCTGG  
GCGCCTGGGCTGCGCTCTTCGCGGGGTGTCCGCAGCTGCCGGCTTGCCCCGGTCTGGCTTCCCCGGCGCGCACGC  
ACGGCTGAGCCGCGACGCTCAGTGGCTCGGGCCGTGCCCTTCGCCGTGGCTCTTGGCCGCTGTAGTCCCGCGATC  
CGATCCGCTTCTGCCGCGGGCGGCTCCCTGGAGAGAGGGCGGCGAGGGCGCAGGGAAGAAGAGGGACGTCCACTGT  
GGAACATGAAGCAGCATGAAGCAGCATGACTGAGAAAATGTCCAGCTTCCTCTACATAGGGGACATCGTGTCCCT  
GTACGCGGAGGGCTCGGTCAACGGCTTCATCAGCACCTTGGGGTAGTGGATGACAGATGTGTGGTGCACCCAGA  
GGCCGGGGACCTTGCCAACCCTCCCAAGAAGTTCAGAGACTGCCTTTTCAAGGTGTGCCCTATGAACAGATATTC  
TGCCCAGAAGCAATATTGGAAGCAAAGCAAGCCAAACAAGGGAACCCACACCGAGGCAGCCTTGCTGAAGAACT  
ACAGCACGCTGCAGAACTGGAACAAAAACAAAATGAATCGGAGAATAAGAACTGTTGGGAGAAATTGTAAAATA  
CAGTAATGTTATACAACACTACTGCATATAAAAAGCAACAAATATCTTACTGTCAACAAGAGATTACCTGCTTTACT  
GGAGAAGAATGCCATGCGTGTGTCTTGGATGCTGCAGGAAATGAAGGGTCTTGTTTTATATTTCATCCATTCTG  
GAACTGAGAAGCGAGGGTGACAATATTGTTGTAGGAGATAAAGTTGTTTTGATGCCTGTGAATGCAGGGCAGCC  
ACTACATGCCAGCAACATAGAGCTTCTTGATAACCCAGGGTGTAAGAGGTGAATGCTGTCAATTGCAACACCAG  
CTGGAAAATCACTTTATTTCATGAATATAGTTTCTATCGAGAGGATGTATTAAAAGGAGGGGACGTTGTTAGATT  
ATTTTCATGCGGAACAAGAGAAGTTTTTGACTTGTGATGAATATGAGAAAAACAGCACATTTTCCTTCGTACGAC  
CTTGCGCCAATCAGCTACTTCTGCTACTAGTTCTAAAGCACTCTGGGAAATAGAGGTGGTTCATCATGACCCATG  
CCGTGGGGGTGCAGGACAGTGAACAGCTTGTTGAGATTTAAGCACTCTTGCAACTGGAACTATTTAGCTGCAGA  
GCTTAATCCTGATTATCGAGATGCCCAAATGAAGGAAAAAATGTGAGAGATGGAGTCCCTCCAACCTTCAAAGAA  
AAAACGCCAGGCAGGGGAGAAGATCATGTATACTTTGGTTTCAGTCCCGCATGGCAATGACATTGCATCCCTTTT  
TGAAGTAGATGCCACAACCTCTTCAGAGAGCTGACTGCCTGGTTCCAAGGAACCTCATATGTTCCGTTAAGGCATTT  
ATGCACCAACACATGGGTAACCAGTACTAGTATCCCCATAGACACAGATGAAGAGAGGCCTGTTATGTTAAAGAT  
TGGAACCTGCCAAACCAAAGAAGATAAAGAAGCGTTCGCAATCGTGTCTGTTCCACTGTCTGAAGTTCGAGACTT  
AGACTTTGCCAATGATGCCAATAAAGTACTAGCGACCACAGTTAAAAAGCTAGAAAACGGCACAATAACTCAGAA  
TGAAAGGAGGTTTGTAACCAAATTATTGGAAGATCTCATATTCTTTGTTGCTGATGTGCCTAATAATGGACAAGA  
AGTTCTGGATGTGGTTATCACTAAGCCAAACCGAGAGCGTCAAAAATTGATGAGGGGAACAAACATACTGGCACA  
GGTATTTGGAATTCCTTAAAGCACCTTTTAAAGAGAAAGCAGGAGAAGGCTCGATGCTGAGACTTGAAGATCTGGG  
GGATCAAAGATATGCACCCTACAAGTACATGCTGCGGCTCTGTTACCGCGTCTGAGACACTCGCAGCAGGATTA  
CCGGAAAAATCAGGAATATATTGCTAAGAATTTCTGTGTCATGCAGTCCAGATTGGCTATGATATTTTGGCAGA  
AGATACTATCACACCTTTGTTGCACAACAACAGAAAACACTAGAGAAAACATATCACAGCAAAAGAAATAGAAAC  
ATTTGTGCTAGTTTACTCAGGAGAAATCGGGAGCCAAGGTTTTTGGATTATTTGTGATGCTGTGTGTCTAATAC  
CACTGCTATCCCTGTAACCTCAAGAACTCATCTGTAAATTTATGTTGAGTCCAGGCAATGCAGACATTCTCATTCA  
AACTAAGGTGGTCTCAATGCAAGCAGACAACCCCATGGAGAGCTCCATCCTTTTCAGATGACATTGATGATGAAGA  
AGTTTGGCTCTATTGGATTGACAGCAACAAGGAACCTCATGGCAAAGCTATCAGGCACCTTGCTCAAGAGGCAAA  
AGAAGGCACCAAAGCTGACTTAGAAGTTCTTACCTATTACAGGTACCAGCTAAACCTCTTTGCAAGGATGTGCTT  
GGATCGCCAGTATCTGGCCATAAACAGATTTCTACACAGCTGTCTGTAGACCTGATCCTGCGGTGTGTGTCGGA  
TGAGAGCCTGCCGTTTCGACCTCCGAGCGTCTTCTGTGCGCTCATGCTCCACATGCACGTTGACCGGGATCCCCA  
GGAGTCCGTGGTGCCTGTTTCGCTATGCCAGGCTCTGGACAGAAATCCCCACAAAGATCACAATTCATGAGTATGA  
TTCTATAACAGACTCTTCCAGAAATGATATGAAGAGGAAATTTGCCCTGACAATGGAATTTGTTGAAGAATATTT  
GAAAGAAGTTGTAAACCAGCCCTTTTCCTTTTGGGGATAAAGAAAAAATAAACTGACATTTGAGGTGGTCCACTT  
GGCTCGGAATCTTATATACTTTGGATTTTATAGTTTTCAGTGAGTTATTAAGGCTAACAAGAACACTTCTGGCTAT  
TTTAGACATTGTACAGGCCCCCATGTCATCATACTTTGAAAGATTAAGCAAATTTCAAGATGGAGGAAACAATGT  
GATGAGAACCATTTCATGGGGTGGGAGAGATGATGACCCAGATGGTACTCAGTAGAGGCTCCATCTTCCCCATGAG  
CGTGCCGGATGTGCCACCCAGCATCCACCCGAGCAAGCAAGGGAGCCCCACCGAGCATGAGGATGTGACTGTGAT  
GGACACCAAGCTGAAGATCATTGAGATTTTGCAGTTTATCCTGAGTGTGAGACTGGATTATAGGATCTCATATAT  
GCTGTCAATATATAAGAAGGAGTTTGGAGAGGACAATGACAATGCGGAGACATCTGCCAGTGGATCTCCAGACAC  
TTTACTACCATCAGCTATTGTTCCCTGATATAGATGAAATGCAGCTCAGGCAGAACTATGTTTGCGGGAAGAAA  
AGAAAAAATCCAGTTCAACTTGACGATGAAGGAGGCAGGACGTTTTTACGGGTCTTCATTTCATCTGATCATGCA  
CGACTACCCGCTTTGCTGTCTGGAGCCCTGCAGCTGTTGTTTAAGCACTTCAGCCAGAGGGCAGAGGTTTTACA

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**FIGURE 275B**

GGCATTTAAGCAGGTGCAATTACTGGTGTCTAATCAAGACGTAGATAACTACAAGCAAATCAAGGCAGATCTAGA  
CCAGCTTCGACTGACAGTAGAAAAGTCTGAGCTATGGGTGGAGAAGAGCAGCAACTATGAGAATGGAGAAATAGG  
GGAAAGTCAAGTGAAAGGTGGTGAAGAGCCAATTGAGGAATCAAACATTTTAAGTCCAGTGCAGGATGGAACAAA  
GAAACCTCAGATTGACAGCAACAAGAGCAATAACTACCGGATTGTAAAGGAGATTTTGATCAGGCTAAGTAACT  
CTGTGTGCAGAATAAAAAGTGTGCGAATCAACATCAACGATTACTGAAAAATATGGGGGCGCATTCCGTGGTGT  
GGATCTTCTGCAGATACCCTATGAAAAGAATGATGAAAAGATGAATGAAGTAATGAATCTAGCCCATACATTTCT  
GCAGAATTTCTGTGAGGAAATCCACAGAATCAAGTTCTTCTTCATAAACATCTGAATTTGTTTTTAACCTCCAGG  
TCTCCTTGAAGCAGAAACCATGCGGCACATCTTCATGAACAATTACCATCTGTGCAACGAAATTAGCGAGAGAGT  
TGTACAACACTTTGTGCACTGCATTGAGACACATGGCCGCCACGTGGAGTACCTGAGGTTTTTGCAAACAATTGT  
AAAAGCAGATGGTAAATATGTGAAGAAATGCCAGGATATGGTAATGACAGAGTTGATAAATGGGGGTGAAGACGT  
GCTGATATTTTACAATGATAGAGCATCATTTCCAATCCTTCTCCATATGATGTGTTTCAGAGAGAGACCGAGGGGA  
TGAGAGTGGCCCCCTTAGCCTACCACATCACCTGGTGGAGTTGCTGGCAGCATGCACAGAGGGGAAAAATGTCTA  
CACTGAAATCAAGTGTAATTCCTTCTCCCGCTGGACGACATAGTGAGGGTGGTGACCCATGACGACTGCATCCC  
TGAGGTTAAAATTGCTTATGTGAACCTTTGTAACTACTGTTATGTTGACACTGAAGTGGAATGAAAGAAATCTA  
TACAAGTAACCACATTTGGAATTTATTTGAGAACCTTCTTGGTGGATATGGCAAGGGTTTGCAACACAACCTACAGA  
CAGGAAGCATGCAGACATCTTTTTGGAAAAGTGTGTTACTGAGTCAATAATGAATATTGTGAGCGGCTTCTTTAA  
TTCTCCCTTTTCAGACAATAGTACCAGCCTCCAGACACATCAGCCAGTTTTTATTGAGTACTGCAATCTGCCTT  
CAGAATTTACAATTGCACCTGGCCAAACCCAGCGCAGAAAGCCTCAGTGGAATCCTGTATCAGAACTTTGGCTGA  
AGTGGCAAAAAATCGTGGAATTGCCATTCCAGTGGATTGGACAGCCAAGTTAATACTCTTTTCATGAAGAGCCA  
TTCAAATATGGTGCAGAGAGCAGCAATGGGTTGGAGACTATCAGCTCGCTCTGGGCCACGCTTAAAGGAAGCTCT  
TGGAGGGCCTGCTTGGGATTACAGAAATATTATTGAAAAGTTACAGGATGTAGTGGCCTCCTTGGAGCACCAGTT  
CAGCCCAATGATGCAGGCTGAATTCTCAGTGTTGGTTGATGTATTGTACAGTCCAGAACTGCTGTTCCCTGAGGG  
AAGCGATGCAAGAATAAGATGTGGCGCTTTCATGTGCAAGTTGATTAAATCATACAAAGAACTAATGGAGAAAGA  
AGAAAACTGTGCATTAAAATTCTTCAGACATTACGAGAAATGTTAGAGAAGAAAGACAGCTTTGTGGAAGAGGG  
TAACACATTAAGAAAGATACTTCTGAATCGATACTTTAAAGGTGATTATAGTATTGGTGTGAATGGACACCTATC  
AGGAGCCTACTCCAAAACCTGCACAGGTGGGAGGAAGCTTTTCTGGACAAGATTCAGATAAGATGGGGATATCAAT  
GTCAGACATTCAGTGTCTGCTGGATAAAGAAGGTGCATCAGAACTTGTATCGATGTTATAGTGAACACCAAAAA  
TGACAGAATTTTTTCAGAAGGCATTTTCTCGGCATTGCCTTGCTTGAAGGAGGAAATACACAAACACAGTATTC  
TTTCTACCAGCAGTTGCATGAACAAAAAAGTCAGAAAAATCTTTAAAGTTCTCTATGATCGAATGAAGGCTGC  
TCAGAAAGAAATAAGATCAACAGTGACAGTTAATACCATAGATTTAGGTAACAAAAAAGGGACGATGACAATGA  
ATTGATGACATCTGGTCCACGAATGAGAGTAAGAGATTCAACACTACATTTAAAAGAGGGAATGAAAGGGCAATT  
AACAGAAGCTTCTTCAGCAACATCCAAAGCATATTGTGTATACAGAAGAGAAATGGATCCAGAAATAGACATTAT  
GTGCACAGGACCAGAAGCGGGAACACTGAGGAAAAATCCGAGAGGAAGTAACAATGAGTCCCGCAATTGCCAT  
CATGCAGCCAATACTGAGATTTCTTCAGTTACTGTGTGAGAATCACAACCGGGAATTGCAGAACTTCTTGAGGAA  
TCAAAACAACAAAACAAATTACAACCTAGTCTGTGAGACCCTTCAGTTTTCTGGACTGCATTTGTGGAAGTACAAC  
CGGTGGCCTGGGCTGTTGGGTCTCTACATCAATGAGAAGAATGTAGCGCTGGTCAACCAGAACCTGGAGAGCTT  
GACTGAGTATTGCCAGGGCCCTTGCCATGAAAATCAGACCTGTATCGCTACACATGAGTCTAATGGGATTGATAT  
CATCATTGCTTTGATTCTGAATGACATAAACCTCTTGGTAAATACCGAATGGACCTGGTGCTCCAGCTAAAGAA  
CAATGCATCTAACTTTTGTGCTGGCCATTATGGAAGCAGACATGACAGTGAGAATGCAGAAAGAATTCTTTTTAA  
CATGAGACCCAGAGAACTGGTGGATGTGATGAAGAATGCCTATAACCAAGGATTGGAATGTGACCATGGGGATGA  
TGAGGGTGGAGATGATGGTGTTCCTCCAAAAGATGTTGGACACAATATCTATATTCTGGCCCATCAGTTGGCCCG  
CCACAATAAACTGTTGCAGCAGATGCTCAAACCAGGATCGGATCCAGATGAAGGAGATGAAGCCTTAAAGTATTA  
TGCCAACCACACTGCACAGATTGAGATTGTCCGGCATGATAGGACCATGGAACAAATAGTTTTCTGTCCCCAA  
TATATGTGAATACCTCACTCGAGAATCCAAGTGCCGTGTGTTCAATACAACCTGAAAGGGATGAACAAGGAAGTAA  
AGTGAATGACTTTTTCCAGCAAACAGAAGATCTCTACAATGAAATGAAGTGGCAGAAGAAAATCAGGAATAACCC  
TGCACTGTTTCTGGTTCTCGAGGCACATCTCTCTCTGGGGGAGCATTTCTTCAACCTGGCTGTGTTTCATCAATTT  
AGCTGTTGCTCTCTTCTACCCATTGGGGATGATGGAGATGAAGGTACACTTTCTCCATTGTTCTCGGTTCTTCT  
TTGGATAGCAGTTGCGATCTGCACATCTATGCTGTTTTTCTTCTCCAAGCCTGTGGGTATTCGGCCGTTTCTGTG

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**FIGURE 275C**

ATCAATAATGCTCAGATCAATATATACAATAGGTCTTGGGCCTACATTAATACTTCTTGGTGCAGCTAATCTTTG  
TAATAAAATTGTTTTTCTGGTGAGTTTTGTTGGAAATCGTGGCACGTTACCCGTGGGTACCGAGCAGTCATCCT  
GGATATGGCCTTTCTCTATCACGTGGCGTATGTCCTGGTTTTGCATGCTGGGCCTTTTTGTCCATGAATTCTTCTA  
TAGCTTCCTGCTTTTTGATTTGGTGTACAGGGAAGAGACTTTGCTGAATGTCATAAAAAGTGCACACGAAATGG  
CCGCTCTATTATTCTAACTGCAGTCCTGGCTCTCATCCTCGTCTACCTGTTTTCCATTATTGGGTTCTTTTTTT  
GAAGGATGACTTCACTATGGAAGTTGATAGGCTGAAAAACCGAACTCCTGTTACAGGCAGTCATCAAGTGCCTAC  
TATGACTTTAACTACCATGATGGAAGCATGTGCCAAGGAGAAGTTCACCCACAATTCCAGCTTCAAATACAGC  
TGATGAAGAGTATGAAGATGGAATTGAAAGGACGTGTGACACTCTCCTTATGTGCATTGTACCCTGCTGAACCA  
GGGCCTCAGGAATGGCGGTGGTGTGGGGGATGTGCTAAGAAGGCCATCGAAAGATGAGCCCTTGTGTGCTGCCCG  
AGTGGTTTTATGACCTTCTTTTTTATTTTCAATTGTTATCATTATTGTTCTGAACTTGATTTTTGGTGTTCATCGA  
TACTTTTGCTGATCTCAGAAGCGAAAAACAGAAAAAGAAGAAATTCTAAAGACAACCTTGTTTCATCTGTGGACT  
TGAGAGAGACAAGTTTGATAATAAAACGGTTTTCAATTTGAGGAGCACATTAAGTCAGAACACAATATGTGGCATT  
TTTGTAATTCATAGTCTTGGTGAAGTTAAAGACCCAAACAGAATACACTGGACCTGAAAAGTTATGTGGCTCAAAT  
GATTGTGGAGAAGAATTTGGATTGGTTTCTCGGATGCGAGCCATGTCCCTCGTTAGCAATGAAGGCGACAGTGA  
GCAAAATGAAATTCGGAGCCTTCAGGAGAAGTTGGAATCGACCATGAGTCTGGTCAAAACAGCTGTGGGTGAGCT  
GGCGGAGCTCAAGGAGCAGATGACAGAACAAGGAAGAATAAGCAGAGACTGGGCTTCCCTCGGATCAAACACACC  
CCATGTGAATCATCACATGCCACCACACTGATACCATGGGGGAAGCCGTGACTAGCCTTTCATCAGTGTCTGCTG  
CTGATCACTGAATAAAAGAACTGAGATGGAGGGGAGTGAACAGTGCCTATTGTTGAAAAGTTAAAAACAACCAAGT  
GCCAAGATGTTGAGTGGGTAGCTCCGAGAACAATTTATAACTGTGTTTTTATGGTTGCGAAGACCTAACCTCAA  
ATGCATCTGCTAGAAAAGCTACATCACACATTTCGAATGCATCAGGAAGAAAAGGCTTGCCCAAAGGCTGGAGA  
GGGCAGGGAGCGGCAGGATGGAAGGAGACACGGGGCAGGGAGAAGTCTCTTCTGCTAAATCGATAGGAGTCAGTT  
TTGTCTTAAATGCTGACTACAGCCACTGACATGGTTGGCTGGAATTTCTTTCTTTTAAATGTTGGCATATAGGTTT  
GTGACACAAGAAGTCATACTTTGGTGGCTAAGTTTTACTAAGGAAAATAACTGAAAAGATTAAAAGTGAGAGCTG  
AAAAGAGAAATGATAATGCTTCCAAACTGTAGCTGTACAGGGCAATTTCTTTATTTATAACATGAAGCACAATG  
GATTTACAGCTCTAGGAACCTTAGTACTTTGGAGCTTTTGCCTCTCACACTGACAACATAACAGGATGTGATTGCC  
TTCTCTGGGATTTCAGACAGGCTCTGTCAATGTGGAGCACAAAAGGAGATTTTCATATAACTTGTTAAAAACATGT  
TCTAAGTCATGTATAGGCTAAGATTTTAAAGAAGATCTGGGGGAATAAAAAGCCAACAGTAAGCCCCAGGAAAGGG  
TTTTTTGAGACCATATGTATGCTATTAAATATATTGAGATTAATACATGAAAATGCTTAGAAGTGATAGGAATT  
ATTGAGAACTTATGATGGTGGCATTGCCTTTTATAAACATGGAGTGAAAGCCATTTGACTCAACGTTTGCTGTG  
CTTAAAGAATTGCTTCAGGACCCGAGCGTTTTTATGTATGCTGTTCTGTCAGTTAGGAAAAAAAATCCAAGAAA  
TGTATTGAATACTCAAGAAAATGCCACATTTCAATTACATATTTAAACTGTATCTGTAAGGGCTTTTCAAATG  
TAGCAAGATAAAAATCTCTTATTCAAATTGTTTTGTATTAAATCATGCACTCAGAAATTTGTCGAGGGAGAGAAT  
AACCTGGTGTGTTTCAAGTTATTCTTAGAGACTACACATTTGGAATAGCAGAGCAAAATATGGATAATGAAAGTGT  
TGGGAAAAAAGTGATGTGACAGGGAGTGAAGACACTTGATACCAGACTCTGGGAGATACTCTGCAAGTTGACCTG  
GCCTCTCCCCACAGGAACAAAACACTGCCTCCAGAGTCTTTAAATTCTCAGTTATCAACGCCAAGTTTAAAGGT  
CTAGATAGGGTTTGCTATAGGGTTTGCTCTGACAATTTTTAAAGCTTTTGGATTGTTCTAACATAGCTTAAAGCTA  
TTGGTTCCATAAAATCCCAAATCAAGATCTATGTAGAATATAAAGGAAGCCTGAACCAATCCTTCCACATACTGT  
TAAGATGTAGACTTGGAACAAAGCTGTTGGGACCCAGAGCAATGAATTTTTGAACTGAAGCTACTGGTACTCCCC  
AGCACCACTCATACTAAGAATTCCTCACTCTGACATGACAGTATTTTTTCTGACCAGGAGCTGAAAGACCCTGA  
CATTTCATGATCCAAAGATATAAGAAATTTTGATATGCTGTCATGCAGCACAGAACTTTGAACCTAGGAGGCAGTC  
AATAAATACATGAGAAATTCAGCTGTCATTCACTTACTCTTAATTCTTTATAAAACTTTAAATGATACCACATAT  
TTGTTTGTGTTTAAATGGCTTTCCCAAATCAAAGTAGACTAAAGCAGCCATCTTTAAATCCAGGATCATCAATG  
CTATTAACAGTATCAGGTAAAAAGTACACTTTAAATATTTTTAATCAGGCAGAGTTTTATGGATAGAGAATAGAA  
GAGAAAGGTAGTAAATATTGAACATATTCCAATATAGGAACCTATCTCTGTTTTAGTACAAAATATTTCTGACAT  
CTGAAGTAGAGGTCAAGAGAATAAATTCATTTGTATACATCTGAGCAACCTGTCTTTCAGATGATAAAGTATCTA  
GCCTTTTCTGACACCATAATAGTTCAATTTATAGGGAATAAGCCATTAGGTGTATATAATTGCTTTCTAGAAATG  
ACCTAATGTCCCCAACCCTGTGTAGTGGCAGATCACTGTTTCACAGCATATTTTCTCCAAGGAAAGTATTCAA  
AAGAGACTGCAACTAACAAGACTCTTATTTTCATCAAATTTAAATATTTCTGAGTTGTATTTTTAATGCCTCTTT

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**FIGURE 275D**

CTTTTCTGCCTAAATGCTTAGAAATTATAAAGCAAAAAATATAAAACAGCAACAAAAAATCGAAGCAGACAAAA  
AAGGCACTTTTCAGAACATCAAATTCCTAATGAAGAAGAGGAGAAGATAATGGGGAAATTTGACATTTGATATAA  
ATTTATATTTGTTATGTGTATGTTTGTAAATGCAACTGGAATATTTGACTTAGGTGAGTATCAGTTAACATCCTT  
GTATTTATATAGTGACATCAAAAATAAATGCAATCATCTTGAACCTTTGATGTAAAGGGAGATTTTGAAAAATATT  
TAGTTATTTCAAATTCATATTGGTTCAAAAGTATCAGTTTCTGCTGAATAATATTTTAATTTCAAAGGGTTTT  
GTTCCCTCTGTGCTCCATTCTGAGGCTCAAGAGCTTAATGCCAGTATGTTTTCTGAGTTAAAATAACACTTTTAG  
ATGAGAAAATGCTTGTATCATACAGGGCTATAATATAAATAAATAAATTGTATGTATGCAAAATTTATCATATTT  
TCTACCCCTTAAAAAATTAAGTTAGAAATAAGCTTATTTTCTTGACATCAATATTTTCTGTTGGTAAAGAGGA  
CACAATTTCTAGTAGATTGTTAATAACATCAGGAAGATATTTCTTTCGTCAGAACTAATTGTGTGCTTATTTCCA  
TATTTCTCAGCTCATAACTCCCTGTTTTGGCTGCTCTCTTTATTTTACAATTGTTTCATTGCAACAGCAAGGCAG  
TATAGCCACACTCAGCCACTAGCCCCCAGTCCCCAGGACTGAGAATGAGTGGGGAGGCTGGGGAGTTGGTGAGA  
GAAGGTGGAGATAGGGATTTCTGCTTCCCAGTACTCTATCATTAGAGAAAAGGAGGGGTAAATATTAGCTAAGAA  
GAAGAAAAAAGCTTATTTCTCAGGGACCCAGTAGATTGGACGTAAGCAAGTAAATATTGCACAGGCATCATGATG  
TAATAGTTGATGGACCCAGAGATACCCCTCACCCATGCAGAGAACAAAGCTGTGTGGAAGAGCAACTACCATAA  
GATGGTGTGTTCCCTCCAGCGGCTGTTAAAGCCATCCTGAATAACAAATCAGCTATTCCTACCTACAGACCCATT  
CCAATATGCTGTGATACACGACACGGTGCACCGCAGAGGAGACAGACATCTTCAGCACAAACACAGATGCCTGCA  
GGAGCTTGGCAAGTCACTAAATTGCATGAAATTGTGAGGTGCACACCAAATGCAGGGATGGGGGAGGCCGTGGGA  
AGCTCTGTATTCTCAAATTTGACAGCTAATTCCGGTTTTTTAGAAAATGCCTGAGGCCAGTAGAGGCCCTCTAGT  
CACTCACTGCTGCTGTTTCTGATATAATTATTGAGAAAGCTATCTCACTTAATAGAAGAAAAACACGCACTATCAA  
AACCAGATAGCCTAACGTGCATGTGAAAAATCGAGAAAGCTGAAAACAAATCCAGGTACCCCTTCTCTGAACTGGAG  
TGTTTCCACAGACTTGAATAATTTATGAAATTATCACACCAGTATTTCTCATATCACCAAGAAGACTTTCTCTCC  
TGCAGTAGAGGATTGTTATATTTGCCTAAAAAACACGATTCCAATATATGACAAGGGCAGATAATTTATAAGTGA  
ATGTTAATAAAATTGGATGTGTATAACTTAAAA



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**FIGURE 276**

RCWRENFRKEQETCRGAGGGCGFSGRLGICALRGVSAAAAPRSGFPGAHARLSRDAQWLGPCSPWLLAAVVP  
DPLLPRLPGERAARAQRRGTSTVEHEAAXSSMTEKMSSFLYIGDIVSLYAEGSVNGFISTLGLVDDRCVHPE  
AGDLANPPKKFRDCLFKVCPMNRYSAQKQYWKAKQAKQGNHTEAALLKKLQHAAELEQKQNESENKKLLGEIVKY  
SNVIQLLHIKSNKYLTVNKRLPALLEKNAMRVSLDAAGNEGSWFYIHPFWKLRSEGDNIIVGDKVVLMPVNAGQP  
LHASNIELLDNPGCKEVENAVNCNTSWKITLFMKYSSYREDVLKGGDVVRLFHAEQEKFLTCDEYEKKQHIFLRTT  
LRQSATSATSSKALWEIEVVHHDPCRGGAGQWNSLFRFKHLATGNYLAAELNPDYRDAQNEGKNVRDGPPTS  
KRQAGEKIMYTLVSVPHGNDIASLFEILDATTQRADCLVPRNSYVRLRHLCTNTWVTSTSIPIIDTEERPVM  
LKI GTCQTKEDKEAFAIVSVPLSEVRDLDFANDANKVLATTVKKLENGTITQNERRFVTKLLEDLIFVADVP  
NNGQE VLDVVITKPNRERQKLMREQNILAQVFGILKAPFKEKAGEGSMRLLEDLGDQRYAPYKMYMLR  
LCYRVLRHSQQDY RKNQEYIAKNFCVMQSQIGYDILAEDTITPLLHNRRKLEKHITAKEIETFVSL  
LRNRNREPRFLDYLSDLCVSNT TAIPVTQELICKFMLS PGNADILIQTKVSMQADNPMESSILSDDID  
DEEVWLYWIDSNKEPHGKAIRHLAQEAK EGTKADLEVLTYRYQLNLFARMCLDRQYLAINQISTQ  
LSVDLILRCVSDSLPFDLRASFRLMLHMHVDRDPQ ESVVPVRYARLWTEIPTKITIHEYDSITDSS  
RNDMKRFALTMEFVEEYLKEVVNQPFPGDKEKNKLTFEVVHL ARNLIYFGFYFSSELLRLRTRTLL  
AILDIVQAPMSSYFERLSKFQDGGNNVMRTIHGVGEMMTQMVLSRGSIFPMS VPDVPPSIHPSKQGS  
PTEHEDVTVM DTKLKIIEILQFILSVRLDYRISYMLS IYKKEFGEDNDNAETSASGSPDT LLPSAIV  
PDIDEIAAQAETMFAGRKEKNPVQLDDEGGRTFLRVL IHLIMHDYPPLLSGALQLLFKHFSQRAEVLQ  
AFKQVQLLVSNQDQVDNYKQIKADLDQLRLTVEKSELVWEKSSNYENGEIGESQVKGGEPIEESNLS  
PVDGTK KPQIDSNKSNNYRIVKEILIRLSKLCVQNKKCRNQHQRLKNMGASHSVLDLLQIPYEKNDEK  
MNEVMNLAHTFL QNFCRGNPQNQVLLHKHLNLF LTPGLLEAETMRHIFMNNYHLCNEISERVVQH  
FVHCIETHGRHVEYLRFLQTIV KADGKYVKKQDMVMTELINGGEDVLIFYNDRASFPILLHMCSE  
RDRGDESGLAYHITLVELLAECTEGKNVY TEIKCNSLLPLDDIVRVVTHDDCIPEVKIAYVNFV  
NHCYVDTEVEMKEIYTSNHIWKL FENFLVDMARVCNTTDD RKHADIFLEKCVTESIMNIVSGFF  
NSPFSNDSLSLQTHQPVFIQLLQSAFRIYNCTWPNPAQKASVESCIRTLAE VAKNRGIAIPVDLDS  
QVNTLFMKSHSNMVQRAAMGWRLSARSGPRFKEALGGPAWDYRNIIEKLQDVVASLEHQF SPMQAE  
FSVLVDVLYSPELLFPEGSDARIRCGAFMSKLINHTKKLMEKEEKLCKIKILQTLREMLEKKDSFVEEG  
NLT LRKILLNRYFKGDYSIGVNGHLSGAYSKTAQVGGSFSGQSDKMGISMSDIQCLLDKEGASELVID  
VIVNTKN DRIFSEGIFLGIALLEGNTQTQYSFYQLHEQKKSEKFFKVLYDRMKAAQKEIRSTVT  
VNTIDLGNNKRRDDNE LMTSGPRMRVDRSTLHLKEGMKGQLTEASSATSKAYCVYRREMDPEIDIMCT  
GPEAGNTEEKSAEEVTMSPAIAI MQPILRFLQLLCENHNRELQNFRLRNQNNKTNYNLVCETLQFLDC  
ICGSTTGGLGLLGLYINEKNVALVNQNL ESL TEYCQGPCHENQTCIATHESNGIDIIIALILNDIN  
PLGKYRMDLVLQKNNASKLLLAIMESRHDSENAERILFN MRPRELVDVMKNAYNQGLECDHGDDEGGD  
GVSPKDVGHNIYILAHQLARHNKLLQQMLKPGSDPDEGDEALKYY ANHTAQIEIVRHDRTMEQIVFP  
VPNICEYLTRESKCRVFNTTERDEQGSKVNDFFQQTEDLYNEMKWQKKIRNNP ALFWFSRHISLWGS  
ISFNLAVFINLAVALFYPF GDDGDEGLTSLPFSVLLWIAVAICTSMLFFFSKPVGIRPFLV SIMLRS  
IYTIGLPTLILLGAANLCNKIVFLVSFVGNRGFTTRGYRAVILDMAFLYHVAYVLVCMLGLFVHEFFY  
SFLFLDLVYREETLLNVIKSVTRNGRSIILTAVLALILVYLF SIIIGFLFLKDDFTMEVDRLKNRTPVT  
GSHQVPT MTLTTMEACAKENCSP TIPASNTADEEYEDGIERTCDTLLMCIVTVLNQGLRNGGGVGD  
VLRPSKDEPLFAAR VVYDLLFYFIVIIIVNLIFGVIIDTFADLRSEKQKKEEILKTTFCICGLERDK  
FDNKTVSFEEHIKSEHNMMWHY LYFIVLVKVKDPTEYTGPE SYVAQMIVEKNLDWFPRMRLSVSNEGD  
SEQNEIRSLQEKLESTMSLVKQLSGQL AELKEQMTEQRKNKQRLGFLGSNTPHVNHHMPPH

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**FIGURE 277A**

CGCGGAGCTGGGAGTGGCTTCGCCATGGCTGTGAGAAGGGACTCCGTGTGGAAGTACTGCTGGGGTGTGTTTATGAT  
GGTTTTATGCAGAACTGCGATTTCCAAATCGATAGTTTTAGAGCCTATCTATTGGAATTCCTCGAACTCCAAATT  
TCTACCTGGACAAGGACTGGTACTATACCCACAGATAGGAGACAAATTGGATATTATTTGCCCAAAGTGGACTC  
TAAACTGTTGGCCAGTATGAATATTATAAAGTTTATATGGTTGATAAAGACCAAGCAGACAGATGCACTATTAA  
GAAGGAAAATACCCCTCTCCTCAACTGTGCCAAACCAGACCAAGATATCAAATTCACCATCAAGTTTCAAGAATT  
CAGCCCTAACCTCTGGGGTCTAGAATTTTCAAGAACAAGATTATTACATTATATCTACATCAAATGGGTCTTT  
GGAGGGCCTGGATAACCAGGAGGGAGGGGTGTGCCAGACAAGAGCCATGAAGATCCTCATGAAAGTTGGACAAGA  
TGCAAGTTCTGCTGGATCAACCAGGAATAAAGATCCAACAAGACGTCCAGAACTAGAAGCTGGTACAAATGGAAG  
AAGTTCGACAACAAGTCCCTTTGTAAAACCAAATCCAGGTTCTAGCACAGACGGCAACAGCGCCGGACATTTCGGG  
GAACAACATCCTCGGTTCCGAAGTGGCCTTATTTGCAGGGATTGCTTCAGGATGCATCATCTTCATCGTCACTCA  
TCATCACGCTGGTGGTCCCTCTTGCTGAAGTACCGGAGGAGACACAGGAAGCACTCGCCGCAGCACACGACCACGC  
TGTCGCTCAGCACACTGGCCACACCCAAGCGCAGCGGCAACAACAACGGCTCAGAGCCCAGTGAATTATCATCC  
CGCTAAGGACTGCGGACAGCGTCTTCTGCCCTCACTACGAGAAGGTCAGCGGGGACTACGGGCACCCGGTGTACA  
TCGTCCAGGAGATGCCCCCGCAGAGCCCGGCAACATTTACTACAAGGTCGAGAGGGACCCTGGTGGTACCTGT  
GCTTTCCAGAGGACACCTAATGTCCCGATGCCTCCCTTGAGGGTTTGAGAGCCCGCTGCTGGAGAATTGACTG  
AAGCACAGCACCGGGGGAGAGGGGACTCCTCCTCGGAAGAGCCCGCTCGCGCTGGACAGCTTACCTAGTCTTGTA  
GCATTTCGGCCTTGGTGAACACACACGCTCCCTGGAAGCTGGAAGACTGTGCAGAAGACGCCCATTCGGACTGCTG  
TGCCGCGTCCACGCTCCTCCTCGAAGCCATGTGCTGCGGTCACTCAGGCCTCTGCAGAAGCCAAGGGAAGACA  
GTGGTTTGTGGACGAGAGGGCTGTGAGCATCCTGGCAGGTGCCCCAGGATGCCACGCCTGGAAGGGCCGGCTTCT  
GCCTGGGGTGCATTTCCCCCGCAGTGCATACCGGACTTGTACACGGACCTCGGGCTAGTTAAGGTGTGCAAAGA  
TCTCTAGAGTTTAGTCCTTACTGTCTCACTCGTTCTGTTACCCAGGGCTCTGCAGCACCTCACCTGAGACCTCCA  
CTCCACATCTGCATCACTCATGGAACACTCATGTCTGGAGTCCCCCTCCTCCAGCCGCTGGCAACAACAGCTTCAG  
TCCATGGGTAATCCGTTTCATAGAAATTGTGTTTGCTAACAAGGTGCCCTTTAGCCAGATGCTAGGCTGTCTGCGA  
AGAAGGCTAGGAGTTTCATAGAAGGGAGTGGGGTGGGGAAGGGCTGGCTGCAATTGCAGCTCACTGCTGTGCTGCC  
TCTGAAACAGAAAGTTGGAAAGGAAAAAGAAAAAGCAATTAGGTAGCACAGCACTTTGGTTTTGCTGAGATCG  
AAGAGGCCAGTAGGAGACACGACAGCACACAGTGGATTCCAGTGCATGGGGAGGCACTCGCTGTTATCAAATA  
GCGATGTGCAGGAAGAAAAGCCCCCTCTTCACTCCGGGGAACAAAGACGGGTATTGTTGGGAAAGGAACAGGCTTG  
GAGGGAAGGGAGAAAGTAGGCCGCTGATGATATATTGGGACAGGACTGTTGTGGTACTGGCAATAAGATACACAG  
CTCCGAGCTGTAGGAGAGTCCGCTGCTTTGGATGATTTTTTAAGCAGACTCAGCTGCTATACTTATCACATTTT  
ATTAAACACAGGGAAAGCATTTAGGAGAATAGCAGAGAGCCAAATCTGACCTAAAAGTTGAAAAGCCAAAGGTCA  
AACAGGCTGTAATTCCATCATCATCGTTGTTATTAAAGAATCCTTATCTATAAAAAGGTAGGTGAGATCCCCCTCC  
CCCCAGGTTCCCTCCTTCCCCCTCCGATTGAGCCTTACGACACTTTGGTTTATGCGGTGCTGTCCGGGTGCCAGGG  
CTGCAGGGTCCGTACTGATGGAGGCTGCAGCGCCCGGTGCTCTGTGTCAAGGTGAAGCACATACGGCAGACCTCT  
TAGAGTCCTTAAGACGGAAGTAAATTATGATGTCCAGGGGAGAAAGGAAGATAGGACGATTTTATAATAGGTATA  
TAGAACACAAGGGATATAAAATGAAAGATTTTTACTAATATATATTTTAAAGGTTGCACACAGTACACACCAGAAG  
ATGTGAAATTCAATTTGTGGCAATTAAGTGGTCCCAATGCTCAGCGCTTAAAAAACAATTGGACAGCTACTTCT  
GGGAAAAACAACATCATTTCCAAAAAGAACAAATAGAGAGCAAATGCAAAAATAACCAAGTCCCTCCGAAGGCATC  
TCACGGAACCGTAGACTAGGAAGTACGAGCCCCACAGAGCAGGAAGCCGATGTGACTGCATCATATATTTAACAA  
TGACAAGATGTTCCGGCGTTTATTTCTGCGTTGGGTTTTCCCTTGCCCTTATGGGCTGAAGTGTCTCTAGAATCC  
AGCAGGTCACTGGGGGCTTCAGGTGACGATTTAGCTGTGGCTCCCTCCTCCTGTCTCCCCCGCACCCCTCC  
CTTCTGGGAAACAAGAAGAGTAAACAGGAAACCTACTTTTTATGTGCTATGCAAAATAGACATCTTTAACATAGT  
CCTGTTACTATGGTAACACTTTGCTTTCTGAATTGGAAGGGAAAAAATGTAGCGACAGCATTTTAAAGTTCTCA  
GACCTCCAGTGAGTACCTGCAAAAATGAGTTGTACAGAAATTATGATCCTCTATTTCTGAACCTGGAAATGAT  
GTTGGTCCAAAGTGCCTGTGTGTATGTGTGAGTGGGTGCGTGGTATACATGTGTACATATATGTATAATATATAT  
CTACAATATATATTATATATATCTATATCATATTTCTGTGGAGGGTTGCCATGGTAACCAGCCACAGTACATATG  
TAATTTCTTTCCATCACCCCAACCTCTCCTTTCTGTGCATTTCATGCAAGAGTTTCTTGTAAGCCATCAGAAGTTAC  
TTTTAGGATGGGGGAGAGGGGCGAGAAGGGGAAAAAATGGGAAATAGTCTGATTTTAAATGAAATCAAATGTATGTA  
TCATCAGTTGGCTACGTTTTGGTTCTATGCTAAACTGTGAAAAATCAGATGAATTGATAAAAGAGTTCCCTGCAA

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**FIGURE 277B**

CCAATTGAAAAGTGTCTGTGCGTCTGTTTTGTGTCTGGTGCAGAAATATGACAATCTACCAACTGTCCCTTTGTT  
TGAAGTTGGTTTAGCTTTGGAAAGTTACTGTAAATGCCTTGCTTGTATGATCGTCCCTGGTCACCCGACTTTGGA  
ATTTGCACCATCATGTTTCAGTGAAGATGCTGTAAATAGGTTTCTGATTTTACTGTCTATGGATTTGGGGTGTAC  
AGTAGCCTTATTCACCTTTTTAATAAAAAATACACATGAAAACAAGAAAGAAATGGCTTTTCTTACCCAGATTGTG  
TACATAGAGCAATGTTGGTTTTTTATAAAGTCTAAGCAAGATGTTTTGTATAAAATCTGAATTTTGCAATGTATT  
TAGCTACAGCTTGTTTAACGGCAGTGTTCATTCCCTTTGCACTGTAATGAGGAAAAATGGTATAAAAGGTTGCC  
AAATTGCTGCATATTTGTGCCGTAATTATGTACCATGAATATTTATTTAAAATTTTCGTTGTCCAATTTGTAAGTA  
ACACAGTATTATGCCTGAGTTATAAATATTTTTTCTTTCTTTGTTTTATTTTAATAGCCTGTCATAGGTTTTAA  
ATCTGCTTTAGTTTCACATTGCAGTTAGCCCCAGAAAATGAAATCCGTGAAGTCACATTCCACATCTGTTTCAA  
CTGAATTTGTTCTTAAAAAATAAAATATTTTTTCTATGGAAAAAAATCTATGTCGGGTGCGGAGAAAGAGG  
TAATGAAATGCAGGATTCGATATCAGCTAT

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**FIGURE 278**

RGAGSGFAMAVRRDSVWKYCWGVLMLCRTAISKSIVLEPIYWSSNSKFLPGQGLVLYPQIGDKLDIICPKVDS  
KTVGQY EY YKVY MVDKDQADRCTIKKENTPLL NCAKPDQDIKFTIKFQEFSPNLWGLEFQKNKDYYIISTSNGL  
EGLDNQEGGVCQTRAMKILMKVGQDASSAGSTRNKDPTRRPELEAGTNGRSSTTSPFVKPNPGSSTDGNSAGHSG  
NNILGSEVALFAGIASGCIIFIVTHHHAGGPLAEVPEETQEALAAAHDHAVAQHTGHTQAQRQQQLRAQ

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**FIGURE 279**

CACAGCCATGGCTGTGAGAAGGGACTCCGTGTGGAAGTACTGCTGGGGTGTTTTGATGGTTTTATGCAGAACTGC  
GATTTCCAAATCGATAGTTTTAGAGCCTATCTATTGGAATTCCTCGAACTCCAAATTTCTACCTGGACAAGGACT  
GGTACTATACCCACAGATAGGAGACAAATTGGATATTATTTGCCCAAAGTGGACTCTAAACTGTTGGCCAGTA  
TGAATATTATAAAGTTTTATATGGTTGATAAAGACCAAGCAGACAGATGCACTATTAAGAAGGAAAATACCCCTCT  
CCTCAACTGTGCCAAACCAGACCAAGATATCAAATTCACCATCAAGTTTCAAGAATTCAGCCCTAACCTCTGGGG  
TCTAGAATTTTCAAGAACAAGATTATTACATTATATCTACATCAAATGGGTCTTTGGAGGGCCTGGATAACCA  
GGAGGGAGGGGTGTGCCAGACAAGAGCCATGAAGATCCTCATGAAAGTTGGACAAGATGCAAGTTCTGCTGGATC  
AACCAGGAATAAAGATCCAACAAGACGTCCAGAAGCTGGAAGCTGGTACAAATGGAAGAAGTTGACAACAAGTCC  
CTTTGTAAAACCAAATCCAGGTTCTAGCACAGACGGCAACAGCGCCGGACATTCCGGGAACAACATCCTCGGTTT  
CGAAGTGGCCTTATTTGCAGGGATTGCTTCAGGATGCATCATCTTCATCGTCATCATCATCACGCTGGTGGTCTT  
CTTGCTGAAGTACCGGAGGAGACACAGGAAGCACTCGCCGACGACACGACCACGCTGTGCTCAGCACACTGGC  
CACACCCAAGCGCAGCGGCAACAACAACGGCTCAGAGCCAGTGACATTATCATCCCGCTAAGGACTGCGGACAG  
CGTCTTCTGCCCTCACTACGAGAAGGTGAGCGGGGACTACGGGCACCCGGTGTACATCGTCCAGGAGATGCCCC  
GCAGAGCCCGGCGAACATTTACTACAAGGTCTGAGAGGGACCTGGTGGTACCTGTGCTTTCCAGAGGACACCT  
AATGTCCCGATGCCTCCCTTGAGGGTTTGAGAGCCCGGTGCTGGAGAATTGACTGAAGCACAGCACCGGGGGAG  
AGGGACACTCCTCCTCGGAAGAGCCCGTGCAGCTGGACAGCTTACCTAGTCTTGTAGCATTGGCCCTTGGTGAAC  
ACACACGCTCCCTGGAAGCTGGAAGACTGTGCAGAAGACGCCCATTTCGACTGCTGTGCCGCTCCACGCTCTCC  
TCCTCGAAGCCATGTGCTGCGGTCACTCAGGCCTCTGCAGAAGCCAAAGGAAGACAGTGGTTTGTGGACGAGAGG  
GCTGTGAGCATCCTGGCAGGTGCCCCAGGATGCCACGCTGGAAGGGCCGGCTTCTGCCTGGGGTGCAATTTCCC  
CGCAGTGCCATACCGGACTTGTACACGGACCTCGGGCTAGTTAAGGTGTGCAAAGATCTCTAGAGTTTATGCTCTT  
ACTGTCTCACTCGTTCTGTTACCCAGGGCTCTGCAGCACCTCACCTGAGACCTCCACTCCACATCTGCATCACTC  
ATGGAACACTCATGTCTGGAGTCCCCTCCTCCAGCGCTGGCAACAACAGCTTCAGTCCATGGGTAATCCGTTCA  
TAGAAATTGTGTTTGCTAACAAGGTGCCCTTTAGCCAGATGCTAGGCTGTCTGCGAAGAAGGCTAGGAGTTTATA  
GAAGGGAGTGGGGCTGGGGAAGGGCTGGCTGCAATTGCAGCTCACTGCTGCTGCCTCTGAAACAGAAAGTTGGA  
AAGGAAAAAAGAAAAAGCAATTAGGTAGCACAGCACTTTGGTTTTGCTGAGATCGAAGAGGCCAGTAGGAGACA  
CGACAGCACACACAGTGGATTCCAGTGCATGGGGAGGCACTCGCTGTTATCAAATAGCGATGTGCAGGAAGAAAA  
GCCCCCTCTTCATTCCGGGGAACAAAGACGGGTATTGTTGGGAAAGGAACAGGCTTGGAGGGAAGGGAGAAAGTAG  
GCCGCTGATGATATATTCCGGGAGGACTGTTGTGGTACTGGCAATAAGATACACAGCTCCGAGCTGTAGGAGAGT  
CGGTCTGCTTTGGATGATTTTTTAAGCAGACTCAGCTGCTATACCTTATCACATTTTATTAAACACAGGGAAAGCA  
TTTAGGAGAATAGCAGAGAGCCAAATCTGACCTAAAAGTTGAAAAGCCAAAGGTCAAACAGGCTGTAATTCATC  
ATCATCGTTGTTATTAAAGAATCCTTATCTATAAAAGGTAGGTCAGATCCCCCTCCCCCAGGTTCTCTCTTCCC  
CTCCCGATTGAGCCTTACGACACTTTGGTTTTATGCGGTGCTGTCCGGGTGCCAGGGCTGCAGGGTCCGTACTGAT  
GGAGCCTGCAGCGCCCGGTGCTCTGTGTCAAGGTGAAGCACATACGGCAGACCTCTTAGAGTCTTAAGACGGAA  
GTAAATTATGATGTCCAGGGGAGAAAGGAAGATAGGACGTATTTATAATAGGTATATAGAACACAAGGGATATAA  
AATGAAAGATTTTACTAATATATATTTTAAGGTTGCACACAGTACACACCAGAAAGATGTGAAATTCATTTGTGG  
CAATTAAGTGGTCCCAATGCTCAGCGCTTAAAAAACAATTTGGACAGCTACTTCTGGGAAAAACAACATCATTC  
CAAAAAGAACAATAATGAGAGCAAATGCAAAAATAACCAAGTCCTCCGAAGGCATCTCACGGAACCGTAGACTAG  
GAAGTACGAGCCCCACAGAGCAGGAAGCCGATGTGACTGCATCATATATTTAACAATGACAAGATGTTCCGGCGT  
TTATTTCTGCGTTGGGTTTTCCCTTGCCTTAAGGGCTGAAGTGTCTCTAGA

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**FIGURE 280**

MAVRRDSVWKYCWGVLMLCRTAISKSIIVLEPIYWNSSNSKFLPGQGLVLYPQIGDKLDIICPKVDSKTVGQY  
YKVYMDKDQADRCTIKKENTPLLNCAKPDQDIKFTIKFQEFSPNLWGLEFQKNKDYYIIISTNGSLEGLDNQEG  
GVCQTRAMKILMKVGQDASSAGSTRNKDPTRRPELEAGTNGRSSTTSPFVKPNPGSSTDGNSAGHSGNNILGSEV  
ALFAGIASGCIIFIVIIITLVVLLLKYRRRHRKHSPQHSTTSLSTLATPKRSGNNNGSEPSDIIIPLRADSVF  
CPHYEKVSGDYGHPVYIVQEMPPQSPANIYYKV

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**FIGURE 281**

CGGAGCCGCCCGCTGAGGTCAGAAGGAGGCGTCTGCGCTGATCGGGTCCGCCGCGGCCAGAGCCAGAGTCGCAG  
CCGAGGGGAGCCGGGGCCGGAGCCCGAGCCCGAGCCGAGCCGGAGCCCGAGCGAGCGGCGGAGACCGTGCCCCCG  
CCTCGGCCCCGCGCCCGCGGCCAGGCCCGGCATGGAGGAGGAGTGCCGGGTGCTCTCCATACAGAGCCACGTC  
ATCCGCGGCTACGTGGGCAACCGGGCGGCCACGTTCCCGCTGCAGGTTTTGGGATTGAGATTGACGCGGTGAAC  
TCTGTCCAGTTTTCAAACACACAGGCTATGCCCACTGGAAGGGCCAAGTGCTGAATTCAGATGAGCTCCAGGAG  
TTGTACGAAGGCCTGAGGCTGAACAACATGAATAAATATGACTACGTGCTCACAGGTTATACGAGGGACAAGTCG  
TTCCTGGCCATGGTGGTGGACATTGTGCAGGAGCTGAAGCAGCAGAACCCAGGCTGGTGTACGTGTGTGATCCA  
GTCTTGGGTGACAAGTGGGACGGCGAAGGCTCGATGTACGTCCCGGAGGACCTCCTTCCCGTCTACAAAGAAAAA  
GTGGTGCCGCTTGCGAGACATTATCACGCCCAACCAAGTTTGAGGCCGAGTTACTGAGTGGCCGGAAGATCCACAGC  
CAGGAGGAAGCCTTGCGGGTGATGGACATGCTGCACTCTATGGGCCCCGACACCGTGGTCATCACCAGCTCCGAC  
CTGCCCTCCCCGAGGGCAGCAACTACCTGATTGTGCTGGGGAGTCAGAGGAGGAGGAATCCCGCTGGCTCCGTG  
GTGATGGAACGCATCCGGATGGACATTCGCAAAGTGGACGCCGTCTTTGTGGGCACTGGGGACCTGTTTGCTGCC  
ATGCTCCTGGCGTGGACACACAAGCACCCCAATAACCTCAAGGTGGCCTGTGAGAAGACCGTGTCTACCTTGCAC  
CACGTTCTGCAGAGGACCATCCAGTGTGCAAAAGCCAGGCCGGGGAAGGAGTGAGGCCAGCCCCATGCAGCTG  
GAGCTGCGGATGGTGCAGAGCAAAAGGGACATCGAGGACCCAGAGATCGTCGTCCAGGCCACGGTGCTGTGAGGG  
CCCCGCCGCTTGCCCGTGACACGCAGCGCGTTGGTGTCTCCGTGTTTGTCCCTGTGAAAACATGTAACGTCTGCC  
TTAGAGCCATGACCGAACTTGATATTTTTTTCTTTTCATGAGTGTCCGGCATCTGCTGGTCTTCATTGTGAAACG  
TGCCAGTCGTGCTTTGTGAAAAATAACAAAGTGGTCACAAAAAAAAAAAAAAAAAAAA

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**FIGURE 282**

MEEECRVLSIQSHVIRGYVGNRAATFPLQVLGFEIDAVNSVQFSNHTGYAHWKQVLNSDELQELYEGLRLNNMN  
KYDYVLTGYTRDKSFLAMVVDIVQELKQQNPRLVYVCDPVLGDKWDGEGSMYVPEDLLPVYKEKVVPLADIITPN  
QFEAELLSGRKIHSQEEALRVMDMLHSMGPD TVVITSSDLPS PQGSNYLIVLGSQRRRNPA GSVVMERIRMDIRK  
VDAVFVGTGDLFAAMLLAWTHKHPNNLKVACEKTVSTLHHVLQRTIQCAKAQAGEGVRPSPMQLELRMVQSKRDI  
EDPEIVVQATVL



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**FIGURE 283**

AATCCTGGAACAAGGCTACAGCGTCGAAGATCCCCAGCGCTGCGGGCTCGGAGAGCAGTCCTAACGGCGCCTCGT  
ACGCTAGTGTCTCCCTTTTCAGTCCGCGTCCCTCCCTGGGCCGGGGCTGGCACTCTTGCCCTCCCCGTCCTCAT  
GGCGCTGCTCCGACGCCCCGACGGTGTCCAGTGATTTGGAGAATATTGACACAGGAGTTAATTCTAAAGTTAAGAG  
TCATGTGACTATTAGGCGAACTGTTTTAGAAGAAATTGGAAATAGAGTTACAACCAGAGCAGCACAAAGTAGCTAA  
GAAAGCTCAGAACACCAAAGTTCCAGTTCAACCCACCAAACAACAATGTCAACAAACAACCTGAAACCTACTGC  
TTCTGTCAAACCAGTACAGATGGAAAAGTTGGCTCCAAAGGGTCCTTCTCCACACCTGAGGATGTCTCCATGAA  
GGAAGAGAATCTCTGCCAAGCTTTTTCTGATGCCTTGCTCTGCAAATCGAGGACATTGATAACGAAGATTGGGA  
GAACCCCTCAGCTCTGCAGTGAAGTACGTTAAGGATATCTATCAGTATCTCAGGCAGCTGGAGGTTTTGCAGTCCAT  
AAACCCACATTTCTTAGATGGAAGAGATATAAATGGACGCATGCGTGCCATCCTAGTGGATTGGCTGGTACAAGT  
CCACTCCAAGTTTAGGCTTCTGCAGGAGACTCTGTACATGTGCGTTGGCATTATGGATCGATTTTTACAGGTTCA  
GCCAGTTTCCCGGAAGAAGCTTCAATTAGTTGGGATTACTGCTCTGCTCTTGCTTCCAAGTATGAGGAGATGTT  
TTCTCCAAATATTGAAGACTTTGTTTACATCACAGACAATGCTTATACCAGTTCCCAAATCCGAGAAATGGAAAC  
TCTAATTTTGAAGAATTGAAATTTGAGTTGGGTCGACCCTTGCCACTACACTTCTTAAGGCGAGCATCAAAGC  
CGGGGAGGTTGATGTTGAACAGCACACTTTAGCCAAGTATTTGATGGAGCTGACTCTCATCGACTATGATATGGT  
GCATTATCATCCTTCTAAGGTAGCAGCAGCTGCTTCCTGCTTGTCTCAGAAGGTTCTAGGACAAGGAAAATGGAA  
CTTAAAGCAGCAGTATTACACAGGATACACAGAGAATGAAGTATTGGAAGTCATGCAGCACATGGCCAAGAATGT  
GGTGAAAGTAAATGAAAACTTAACTAAATTCATCGCCATCAAGAATAAGTATGCAAGCAGCAAACCTCCTGAAGAT  
CAGCATGATCCCTCAGCTGAACTCAAAGCCGTCAAAGACCTTGCTCCCCACTGATAGGAAGGTCCTTAGGCTGC  
CGTGGGCCCTGGGGATGTGTGCTTCATTGTGCCCTTTTTCTTATTGGTTTAGAACTCTTGATTTTGTACATAGTC  
CTCTGGTCTATCTCATGAAACCTCTTCTCAGACCAGTTTTCTAAACATATATTGAGGAAAAATAAAGCGATTGGT  
TTTTCTTAAGGTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 284**

MALLRRPTVSSDLENIDTGVNSKVKSHVTIRRTVLEEIGNRVTTTRAAQVAKKAQNTKVPVQPTKTTNVNKQLKPT  
ASVKPVQMEKLAPKGPSPTPEDVSMKEENLCQAFSDALLCKIEDIDNEDWENPQLCSDYVKDIYQYLRQLEVLQS  
INPHFLDGRDINGRMRAILVDWLQVHVKFRLQETLYMCGIMDRFLQVQPVSRKKLQLVGITALLLASKYEEM  
FSPNIEDFVYITDNAYTSSQIREMETLILKELKFELGRPLPLHFLRRASKAGEVDVEQHTLAKYLMELTLIDYDM  
VHYHPSKVAAAASCLSQKVLGQGKWNLKQQYYTGYTENEVLEVMQHMAKNVVKVNENLTKFIAIKNKYASSKLLK  
ISMIPQLNSKAVKDLASPLIGRS

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**FIGURE 285**

CCGGCTCCCATTCGGGCTCCAGCCTCCAATCCGACCCCCATTTCGGGCTGCAGCCTCGGACCTAGCTCCGGGCCCTC  
GGTCTATCCGGTTGCATCCTCCCTCCCTGTTCCGGATCTTATCTTGCGCCAGCGCCTACTCCAGGATCCCGTAGC  
CAGACCTCAAGCCATGGCTGGTCCCTTCTCCCGTCTGCTGTCCGCCCCGCGGGACTCAGGCTCCTGGCTTTGGC  
CGGAGCGGGGTCTCTAGCCGCTGGGTTTCTGCTCCGACCGGAACCTGTACGAGCTGCCAGTGAACGACGGAGGCT  
GTATCCCCCGAGCGCTGAGTACCCAGACCTCCGAAAGCACAACTGCATGGCCAGTCACCTGACCCCAGCAGT  
CTATGCACGGCTCTGCGACAAGACCACACCCACTGGTTGGACGCTAGATCAGTGTATCCAGACTGGCGTGGACAA  
CCCTGGCCACCCCTTTCATCAAGACTGTGGGCATGGTGGCTGGAGATGAGGAGACCTATGAGGTATTTGCTGACCT  
GTTTGACCCTGTGATCCAAGAGCGACACAATGGATATGACCCCGGACAATGAAGCACACCACGGATCTAGATGC  
CAGTAAAATCCGTTCTGGCTACTTTGATGAGAGGTATGTATTGTCTCTAGAGTCAGAACTGGCCGAAGCATCCG  
AGGACTCAGTCTGCCTCCAGCTTGCACTCGAGCAGAGCGACGAGAGGTGGAACGTGTTGTGGTGGATGCACTGAG  
TGGCCTGAAGGGTGACCTGGCTGGACGTTACTATAGGCTCAGTGAGATGACAGAGGCTGAACAGCAGCAGCTTAT  
TGATGACCACTTTCTGTTTGATAAGCCTGTGTCCCGTTGCTGACTGCAGCAGGAATGGCTCGAGACTGGCCAGA  
TGCTCGTGGAATTTGGCACAACAATGAGAAGAGCTTCCTGATCTGGGTGAATGAGGAGGATCATAACGGGTGAT  
CTCCATGGAGAAGGGTGGTAACATGAAGAGAGTGTTTGAAAGATTCTGCCGAGGCCTCAAAGAGGTGGAGAGACT  
TATCCAAGAACGTGGCTGGGAGTTCATGTGGAATGAGCGTTTGGGATACATCTTGACCTGTCCATCTAACCTGGG  
CACTGGACTTCGGGCAGGAGTGACATCAAAGTCCCCCTGCTAAGCAAAGATAGCCGCTTCCCAAAGATCCTGGA  
GAACCTAAGACTCCAAAACGTGGTACTGGAGGAGTGGACACTGCTGCTACAGGCGGTGTCTTTGATATTTCTAA  
TTTGGACCGACTAGGCAAATCAGAGGTGGAGCTGGTGCAACTGGTCATCGATGGAGTAACTATTTGATTGATTG  
TGAACGGCGTCTGGAGAGAGGCCAGGATATCCGCATCCCCACACCTGTCTACACACCAAGCATTAACTCCCCAT  
CGCCAGCTGATGACTCAAGATTCCCAGGAGTTTTGCTCATTTCTAATGATGGCCATTCTACTTGCTCTGGACCTG  
CCCCCGCATCCCTGCCTCCATCCTAGT

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**FIGURE 286**

MAGPFSRLLSARPGRLRLLAGAGSLAAGFLLRPEPVRAASERRRLYPPEAEYPDLRKHNNCMAHSLTPAVYARL  
CDKTTPTGWTLDQCIQTGVDNPGHPFIKTVGMVAGDEETYEVFADLFDVPIQERHNGYDPRMKHTTDL DASKIR  
SGYFDERYVLSSRVRTGRSIRGLSLPPACTRAERREVERVVVDALSGLKGDLAGRYRLSEMTEAEQQQLIDDHF  
LFDKPVSPLLTAAGMARDWPDARGIWHNNEKSFLIWVNEEDHTRVISMEKGGNMKRVFERFCRGLKEVERLIQER  
GWEFMWNERLGYILTCPSNLGTGLRAGVHIKLPLLSKDSRFPKILENLRLQKRGTTGGVDTAATGGVFDISNLDRL  
GKSEVELVQLVIDGVNYLIDCERRLERGQDIRIPTPVIHTKH

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**FIGURE 287**

AACAGGATCTCCTCTTGCACTCTGCAGCCCAGGACGCTGATTCCAGCAGCGCCTTACCGCGCAGCCCGAAGATT  
ACTATGGTGAAAAATCGCCTTCAATACCCCTACCGCCGTGCAAAAGGAGGAGGCGCGGCAAGACGTGGAGGCCCTC  
CTGAGCCGCACGGTCAGAACTCAGATACTGACCGGCAAGGAGCTCCGAGTTGCCACCCAGGAAAAAGAGGGCTCC  
TCTGGGAGATGTATGCTTACTCTCTTAGGCCTTTCATTTCATCTTGGCAGGACTTATTGTTGGTGGAGCCTGCATT  
TACAAGTACTTTCATGCCCAAGAGCACCATTTACCGTGGAGAGATGTGCTTTTTTTGATTCTGAGGATCCTGCAAAT  
TCCCTTCGTGGAGGAGAGCCTAACTTCCTGCCTGTGACTGAGGAGGCTGACATTCGTGAGGATGACAACATTGCA  
ATCATTGATGTGCCTGTCCCCAGTTTCTCTGATAGTGACCCCTGCAGCAATTATTTCATGACTTTGAAAAGGGAATG  
ACTGCTTACCTGGACTTGTTGCTGGGGAAGTCTATCTGATGCCCCCTCAATACTTCTATTGTTATGCCTCCAAAA  
AATCTGGTAGAGCTCTTTGGCAAAGTGGCGAGTGGCAGATATCTGCCTCAAACCTTATGTGGTTTCGAGAAGACCTA  
GTTGCTGTGGAGGAAATTCGTGATGTTAGTAACCTTGGCATCTTTATTTACCAACTTTGCAATAACAGAAAGTCC  
TTCCGCCCTTCGTGCGAGAGACCTCTTGCTGGGTTTCAACAAACGTGCCATTGATAAATGCTGGAAGATTAGACAC  
TTCCCAACGAATTTATTGTTGAGACCAAGATCTGTCAAGAGTAAGAGGCAACAGATAGAGTGCTCTTGGTAATA  
AGAAGTCAGAGATTTACAATATGACTTTAACATTAAGGTTTATGGGATACTCAAGATATTTACTCATGCATTTAC  
TCTATTGCTTATGCTTTAAAAAAGGAAAAAAAAAAAAAACTACTAACCCTGCAAGCTCTTGTCAAATTTTAGTT  
TAATTGGCATTGCTTGTTTTTTGAACTGAAATTACATGAGTTTCATTTTTTCTTTGCATTTATAGGGTTTAGAT  
TTCTGAAAGCAGCATGAATATATCACCTAACATCCTGACAATAAATCCATCCGTTGTTTTTTTTGTTTGTGTTGT  
TTTTTCTTTTCCTTTAAAGTAAGCTCTTTATTTCATCTTATGGTGGAGCAATTTTAAAATTTGAAATATTTTAAATT  
GTTTTTGAACTTTTTGTGTAATAATATCAGATCTCAACATTGTTGGTTTCTTTTGTGTTTTTCATTTTGTACAAC  
TTCTTGAATTTAGAAATTACATCTTTGCAGTTCTGTAGGTGCTCTGTAATTAACCTGACTTATATGTGAACAAT  
TTTCATGAGACAGTCATTTTTAACTAATGCAGTGATTCTTTCTCACTACTATCTGTATTGTGGAATGCACAAAAT  
TGTGTAGGTGCTGAATGCTGTAAGGAGTTTAGGTTGTATGAATTCTACAACCCTATAATAAATTTTACTCTATAC  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 288**

MVKIAFNTPTAVQKEEARQDVEALLSRTVRTQILTGKELRVATQEKEGSSGRCLTLLGLSFILAGLIVGGACIY  
KYFMPKSTIYRGEMCFFDSEDPANSLRGGEPNFLPVTEADIREDDNIAIIDVPVPSFSDSDPAAIHDFEKGMT  
AYLDLLLGNCYLMPLNTSIVMPPKNLVELFGKLASGRYLPQTYVVREDLVAVEEIRDVSNLGIFIYQLCNNRKSF  
RLRRRDLLLGFNKRAIDKCWKIRHFPNEFIVETKICQE

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**FIGURE 289**

GATCCCAGACCTCGGCTTGCAGTAGTGTTAGACTGAAGATAAAGTAAGTGCTGTTTGGGCTAACAGGATCTCCTC  
TTGCAGTCTGCAGCCCAGGACGCTGATTCCAGCAGCGCCTTACCGCGCAGCCCGAAGATTCACTATGGTGAAAAT  
CGCCTTCAATACCCCTACCGCCGTGCAAAAGGAGGAGGCGCGGCAAGACGTGGAGGCCCTCCTGAGCCGCACGGT  
CAGAACTCAGATACTGACCGGCAAGGAGCTCCGAGTTGCCACCCAGGAAAAAGAGGGCTCCTCTGGGAGATGTAT  
GCTTACTCTCTTAGGCCTTTCATTCATCTTGGCAGGACTTATTGTTGGTGGAGCCTGCATTTACAAGTACTTCAT  
GCCCAAGAGCACCATTACCGTGGAGAGATGTGCTTTTTTGATTCTGAGGATCCTGCAAATTCCTTCGTGGAGG  
AGAGCCTAACTTCCTGCCTGTGACTGAGGAGGCTGACATTCGTGAGGATGACAACATTGCAATCATTGATGTGCC  
TGTCGCCAGTTTCTCTGATAGTGACCCTGCAGCAATTATTCATGACTTTGAAAAGGGAATGACTGCTTACCTGGA  
CTTGTTGCTGGGGAAC TGCTATCTGATGCCCCCAATACTTCTATTGTTATGCCTCCAAAAAATCTGGTAGAGCT  
CTTTGGCAAAC TGCGAGTGGCAGATATCTGCCTCAAACCTTATGTGGTTCGAGAAGACCTAGTTGCTGTGGAGGA  
AATTCGTGATGTTAGTAACCTTGGCATCTTTATTTACCAACTTTGCAATAACAGAAAGTCCTTCGCTTCGTGCG  
CAGAGACCTCTTGCTGGGTTTCAACAAACGTGCCATTGATAAATGCTGGAAGATTAGACACTTCCCAACGAATT  
TATTGTTGAGACCAAGATCTGTCAAGAGTAAGAGGCAACAGATAGAGTGTCTTGTAATAAGAAGTCAGAGATT  
TACAATATGACTTTAACATTAAGGTTTATGGGATACTCAAGATATTTACTCATGCATTTACTCTATTGCTTATGC  
CGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 290**

MVKIAFNTPTAVQKEEARQDVEALLSRTVRTQILTGKELRVATQEKEGSSGRCMLTLLGLSFILAGLIVGGACIY  
KYFMPKSTIYRGEMCFFDSEDPANSLRGGEPNFLPVTEEADIREDDNIAIIDVPVPSFSDSDPAAI IHDFEKGMT  
AYLDLLLGNCYLMPLNTSIVMPPKNLVELFGKLASGRYLPQTYVVREDLVAVEEIRDVSNLGIFIYQLCNNRKSF  
RLRRRDLLLGFNKRAIDKCWKIRHFPNEFIVETKICQE



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**FIGURE 291A**

GCCAAGGAGCGGAGCGGCTCAGCTGCGCCCAGAGCCTTCGGCCGGACCTGAAAAAGCGAGAGGGAGAGCGAGCA  
AAAGGCGCGATCCAGAGAGCCAGGCAAGCGGGGCGCCGACCTGGGGCGGCCCCGGCCCGCGCCCTTGCCCCCTCGG  
CCGGGCGGACGTTCACTTCTTCAACTGAGATGGACATGATATAATCTCCATTGAGTCAAAGAAATGGCATCTAGTC  
CTGAGCTTCCCACCGAAGATGAACAGGGTTCCTGGGGCATCGACGATCTCCATATTTTCATTGCAAGCTGAACAGG  
AAGACACCCAGAAGAAAGCCTTCACGTGCTGGATAAACTCACAGTTGGCCAGGCACACTTCTCCCTCAGTTATAT  
CCGACCTATTACAGACATTAAAAAGGGGCATGTCTCCTGGATCTGCTAGAAGTACTTTCTGGGGCAACAGTTGC  
CTCGGATAAAGGATCTAATACCTTCCAGTGTAGAATCAATATAGAACATGCCTTGACATTCTTAAGAAACCGAT  
CAATTAAGCTAATAAATATTGATGTTACTGATATCATTGATGGAACCCATCCATTATCCTTGGCCTAATTGGA  
CAATTATCCTGCACTTTTCATATTGAGAAGCTTGCCAGACTCTTTCTTGCAATTACAATCAGCCTTCCCTGGATG  
ATGTGAGTGTGGTTGACTCATCTCCTGCCTCAAGTCTCCAGCTAAGAAATGCTCTAAAGTGCAAGCAAGATGGC  
AAATGTCTGCAAGAAAGGCCCTTCTTTTGTGGGCTCAGGAACAATGCGCCACCTATGAGTCTGTCAATGTGACCG  
ATTTTAAGTCAAGTTGGAGAAATGGGATGGCTTTTTTGGCCATCATTGATGCCTTGCGACCAGACCTAATTGACA  
TGAAGAGTGTGAAGCATAGATCCAACAAAGACAATCTGAGAGAGGCCTTCAGAATTGCAGAACAAAGAAATTA  
TCCCAGATTGCTGGAACCAGAAGATGTGGATGTTGTTGATCCTGATGAAAAGTCCATCATGACCTATGTGGCAC  
AGTTTCTGCAGTATTCCAAAGATGCCCCGACTGGAGAGGAGGCTCAGGGAAAGGTGAAAGATGCTATGGGCT  
GGTTAACTCTGCAAAAGGAAAAACTACAGAAGTTGCTAAAGGATTGAGAGAATGATACCTACTTTAAAAAGTATA  
ATAGCCTGCTGTCTTTTATGGAATCATTCAATGAAGAAAAAAGTCTTTTTTGGATGTCTGTCAATAAAACGGG  
ATCTGGATGAGCTGGACAAGGATCATTACAGTTGAGAGAAGCCTGGGATGGCCTCGATCACCAGATTAATGCAT  
GGAAATAAAGCTAAATTATGCCTTGCCCCACCCCTCCATCAAAGCTGAGCTTGGCTCCAGGAGGTAGAAGAGC  
TTATGGATGAAGATTTGTGAGCCTCCCAGGATCACTCTCAAGCCGTGACTCTGATACAAGAGAAAAATGACTTTAT  
TCAAGAGCCTGATGGATAGATTTGAGCATCATTCGAACATTCTCCTTACCTTTGAAAATAAGGATGAAAATCACT  
TGCCATTGGTACCACCTAACAAATTGGAGGAAATGAAAAGACGAATCAACAACATTTTGGAGAAAAAATTTATTC  
TACTTCTAGAATTTCACTACTACAAGTGCTTAGTTCTTGGTTTGGTAGATGAAGTGAATCAAAATTTGGATATTT  
GGAACATTAAATATGGGAGCAGAGAATCTGTGGAATTATTGCTGGAAGACTGGCATAAATTTATTGAAGAAAAAG  
AATTCCTAGCTCGACTTGATACTTCTTTTCAAAAATGTGGAGAAATTTATAAGAATTTGGCTGGAGAATGTCAGA  
ATATTAATAAACAGTATATGATGGTGAAATCTGATGTTTGTATGTATAGAAAAAATATATATAATGTGAAGTCCA  
CTCTACAAAAGTGCTGGCATGTTGGGCTACTTATGTGGAACCTTCGCTTACTAAGGGCTTGCTTTGAGGAGA  
CAAAGAAGGAAGAAATTAAGAGGTACCCCTTGAGACACTAGCCAGTGGAATCTAGAACACGCTACTTTAAATG  
AAGCAGGAAATTTCTTAGTGAAGTCAGCAATGATGTGGTTGGATCATCTATTTCTAAAGAACTGAGAAGGCTGA  
ATAAAAGATGGAGAAAGTTGGTTTCAAAAATCAACTGAAATGAACCTGCCACTGATGATAAAAAAACAGGATC  
AGCCCACTTTTGACAATTCTGGAAATATTCTATCTAAAGAAGAGAAAGCAACTGTTGAGTTTTCAACAGATATGT  
CAGTAGAATCTCCTGAAAATTATAATCAAAATATAAAGGCTGGAGAGAAACATGAAAAGAAAAATGAAGAATTCA  
CAGGGCACTAAAGTGCTAAAGATGTTGAAAAATCATTGGACAAGTGGAAATCTGGGAGGCAGAAAGCCAAAT  
CTGTTTTGGATCAAGATGATGTGGACACCTCAATGGAAGAATCTTTGAAGCATCTTATTGCCAAAGGCTCTATGT  
TTGATGAGCTTATGGCAAGAAGTGAAGATATGTTACAAATGGATATACAAAATATTTCAAGCCAGGAGTCTTTTC  
AACATGTTCTCACAACCTGGGCTTCAGGCAAAGATTCAAGAAGCTAAAGAGAAAGTCCAGATCAATGTGGTAAAC  
TCATTGCAGCGTTGAAGAACTTAACTGACGTTTCACCAGATTTGGACATCAGGCTGAAGATGGAAGAATCCCAGA  
AGGAACCTGAATCATATATGATGAGGGCTCAGCAGTTACTGGGGCAAAGAGAGAGCCCCGGTGAACCTCATTTCAA  
AACACAAGGAAGCACTAATAATTTCTAATACAAAAAGTCTGGCCAAGTATTTGAAAGCTGTTGAAGAATAAAAA  
ATAATGTAAGTGAAGACATAAAGATGTCTTTAGAAGAAAAGAGTAGAGATGTCTGTGCCAAATGGGAGTCTCTTC  
ATCATGAAGTGTCTTTATATGTTCAACAATAAAAAATAGATATTGAAAAGGAAAGCTTAGTGACAATATTTTAA  
AACTTGAAAAGCAAATAAATAAAGAAAAGAACTTATCCGTAGAGGAAGGACCAAGGGTCTCATCAAAGAACATG  
AGGCCTGCTTTTTCTGAGGAAGGCTGCCTGTACCAGCTTAATCACCACATGGAAGTCTTGAGGGAGCTGTGTGAAG  
AGCTGCCTTACAGAAGAGTCAACAAGAAGTGAAGAGACTACTCAAAGATTATGAACAAAAGATAGAAAGACTTC  
TGAAATGTGCTTCCGAGATTATATGACACTGCAGCCACAGCGGGAGGCACGTCGAAAAACGAGGGGACCATCA  
CCACATCTGAGAATAGAGGAGGGGATCCCCACAGTGAGGCACCATTTGCAAAATCAGATAATCAGCCATCAACTG  
AAAAGGCAATGGAACCCACTATGAAGTTTAGCCTGGCATCAGTGTTAAGGCCTCTGCAAGAAGAAAGCATTATGG  
AAAAGGATTACAGTGCATCTATAAATAGTTTACTAGAGAGGTATGATACATACAGAGATATTCTTGAACACCACC

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**FIGURE 291B**

TGCAAAACAACAAATTCAGGATTACTTCTGATTTCTCTAGTGAAGAGGACAGGAGTAGTTCTTGTCTGCAGGCTA  
AACTGACAGATCTACAGGTCATAAAAAATGAACTGATGCTCGCTGGAAAGAGTTTGAAATTATTTTCATTGAAGT  
TAGAAAATCATGTGAATGACATAAAAAAGCCTTTTGTAAATTAAGGAAAGAGACACACTAAAGGAAAGAGAAAGAG  
AGCTTCAGATGACTCTTAATACCAGAATGGAATCTTTAGAGACAGCACTGCGGCTTGTGTTACCTGTAGAGAAGG  
CATCACTTCTTCTCTGTGGCTCGGACCTGCCTCTCCATAAAATGGCCATCCAGGGATTTTCATCTCATTGATGCTG  
ATCGCATCTATCAACACCTAAGGAATATCCAAGATTCCATAGCAAAACAGATTGAAATATGTAACCGCTTAGAAG  
AGCCAGGCAACTTTGTATTAAAGGAGTTACACCCATTTGATCTACACGCAATGCAGAATATTATACTGAAATACA  
AAACACAATTTGAAGGAATGAACCACAGGGTGCAGAGGAGTGAAGATACTCTCAAAGCTCTGGAAGACTTTTTGG  
CGTCTCTCAGAACAGCTAAACTCTCTGCTGAGCCCGTTACAGACCTTTTCAGCCTCAGATACACAGGTGGCACAAG  
AAAATACGTTGACAGTAAAAATAAAGAGGGGAGAAATTCATCTGATGAAAGACAAGGCCAAACATTTGGATAAAT  
GTTTGAAGATGCTCGATATGAGCTTTAAAGATGCTGAACGGGGTGATGACACCTCCTGTGAAAACCTGCTTGATG  
CTTTTTCAATAAAGTTATCTGAGACACATGGCTATGGGGTACAGGAGGAATTCAGTGAAGAAAACAAATTACTAG  
AGGCTTGTATTTTCAAAAATAATGAACTCCTTAAAAATATTCAAGATGTGCAGAGTCAAATCAGTAAAAATTGGTC  
TTAAGGATCCTACTGTTCCAGCTGTGAAACATCGGAAAAAATCATTAAATCAGACTGGATAAGGTTCTAGATGAAT  
ATGAAGAAGAGAAGAGACATTTACAAGAAATGGCTAATTCTCTTCCACACTTCAAAGATGGCAGAGAAAAAACCG  
TGAATCAACAGTGCCAAAAATACAGTAGTCTTGTGGGAGAATACCAAAGCCTTGGTCACCGAATGTCTTGAACAAT  
GTGGGAGAGTTTTGGAGCTCTTAAACAATATCAGAATTTTAAAGCATCTTGACAACCTTTGATTCAAAAAGAAG  
AGAGTGTCTCTCCCTGCAGGCTTCGTACATGGGAAAGGAGAACCCTGAAGAAAGGATAGCAGAGATTGAAATTG  
TCAAAGAAGAATTTAATGAGCATTAGAAGTTGTAGACAAGATAAACCAGGTCTGCAAAAATCTACAATTTTATC  
TAAATAAAATGAAAACCTTTTGAAGAGCCCCCTTTTGAAAAAGAGGCTAATATTATTGTGGATAGATGGCTTGATA  
TAAATGAGAAGACAGAAGATTACTATGAAAATCTTGGTCGAGCTCTAGCTTTGTGGGACAAACTTTTTAACTTAA  
AAAATGTCATTGATGAGTGGACAGAAAAGGCCCTTCAAAAATGGAATTACATCAATTGACTGAAGAGGACAGAG  
AAAGGCTGAAGGAAGAATTACAAGTCCATGAACAAAAAATTCAGAATTTTCTAGAAGAGTGGCTGAAATACAGT  
TTTTGCTCCAAAGCAGTGAAATACCTCTTGAATTGCAGGTCTGAGTCTCTATTTTGAACAAGATGGAACATG  
TACAGAAGTGCTTAACAGGAGAATCCAAGTCCATGCACTCAGTGGCAGCACTGCTGAGCTAAGGGAGGATCTCG  
ACCAAGCCAAGACCCAGATCGGGATGACTGAATCCCTCTTAAAGCCCTGTCTCCTTCTGACAGCTTGGAGATCT  
TCACTAACTAGAGGAGATACAACAGCAGATTCTACAGCAAAAACACAGTATGATATTACTTGAGAATCAAATAG  
GTTGTCTGACTCCTGAACCTCTCTGAATTGAAAAAGCAATATGAAAGTGTGAGTATTTATTTAATACCAAAAAA  
GTGTTTTGCAAGATCACTTTTCTAAGTTATTGAATGATCAATGCAAGAACTTTAATGACTGGTTTCAGCAACATTA  
AAGTGAACCTTAAGGAGTGTGTTTGAATCATCAGAAACAAAAAAGAGTGTGGAACAAAAGCTACAAAAACTTTCTG  
ATTTCTTGACTCTTGAAGGAAGAAACAGTAAATAAAGCAGGTGGACAGCGTACTGAAGCATGTGAAGAAGCATC  
TGCCCAAAGCACATGTGAAGGAGCTTATCAGTTGGCTCGTGGGTCAGGAATTCGAATTAGAAAAAATGGAGTCCA  
TATGCCAGGCTCGAGCAAAGGAGCTTGAAGACTCCTTGCAAGCAGCTACTGAGACTCCAGGATGACCATAGAAACC  
TGAGGAAGTGGTTGACTAATCAAGAAGAGAAATGGAAAGGAACGGAAGAACCAGGGGAGAAAACCTGAGCTGTTCT  
GCCAAGCTTTAGCTAGAAAGAGGGAACAGTTTGAATCTGTGGCCCAATTGAACAACCTTTTGAAGGAATATGGGT  
TACTGAAGAAGAAGAAATAATAATGGAAGCAACATGTTTGTGATGGATAGATACCAGACATTACTGAGACAATAA  
GTGAAATCGAGGAAGAGGATAAGTTACTACCCACAGAGGACCAGAGCTTTAATGATCTTGCACATGATGTAATTC  
ATTGGATAAAAGAGATTAAAGAGTCCCTTATGGTTTTGAATTCATCCGAAGGCAAAATGCCACTTGAGGAAAGAA  
TCCAAAAATCAAGGAATCATTTTGTGTAAGCCTGAAGGGGATGCCAGAATAGAGACCATCATGAAGCAGGCTG  
AGAGCAGCGAGGCCCGCTGGTTTCAAGAACCTCAGTACATCAGCAACCAGTGGGACAACACACTCCATTTAG  
CTAGCACCTACCTAAGCCATCAAGAAAAGCTTCTACTAGAAGGAGAGAAATATTTACAAAGTAAGGAGGATCTGA  
GATTAATGCTCATAGAATTAAGAAGAAACAGGAAGCAGGCTTGTCTTACAACATGGTCTGCAGGAGAAGAAAG  
CTCAGTTAAAGATTTATAAGAAATTCCTCAAGAAAGCCCAAGATTGACATCCTTGCTAAAGGAGTTAAATCTC  
AGGGAAACTACCTCTTGGAGTGCATAAAAATCCAGCTTCAGTGAAGAGCCTTGGCTGGAAATAAAGCATCTAC  
ACGAAAGTCTTCTTCAACAACCTGCAGGATTCTGTGCAAAACTTGGACGGTCACGTTTCGAGAACATGATTCTACC  
AGGTTTTCGCTCACAGACCTGAATACTACATTGGACAATTTCTCCAAGGAATTTGTGAGTTTTTCTGATAAGCCTG  
TGGATCAAAATAGTGGTTGAGGAAAAATTGCAGAACTGCAGGAAGTACAGAAATAGACTCAGTTTACAAGATGGCA  
CATTAAAGAAGATTTTAGCTTTAGCAAAATCCGTCAAGCAAAATACATCTTCAGTGGGGCAGAAGATTATTAAAG

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**FIGURE 291C**

ATGATATAAAATCACTTCAGTGTAACAAAAAGATTGGAACAGGCTTGCATCTGCTAAGCAGGAGATGGAAT  
GTTGTCTCAACAACATTCTCAAATCAAACGCTCAACAGAAAAGAAAGGAAAGTTTACTCTGCCAGGCAGAGAGA  
AGCAGGCCACTTCTGATGTGCAGGAGTCTACTCAGGAATCAGCTACAGTGGAAAAGTTGGAGGAAGACTGGGAAA  
TAAACAAGGATTTCAGCTGTGGAAATGGCTATGTCAAAACAACTTTCTCTTAATGCTCAAGAAAGCATGAAAAACA  
CTGAAGATGAGCGGAAAGTCAATGAGCTGCAAAATCAACCTTTAGAATTAGATACTATGTTAAGAAATGAACAAT  
TAGAAGAGATAGAGAAATTATATACCCAGTTGGAAAGCAAAGAAAGCAGCCATTAAGCCACTGGAACAAAACAGAAT  
GTCTTAACAAAACAGAACTGGGGCCTTGGTTCTCCACAATATAGGATATTCGGCACAGCATTGAGCAATTTGC  
TTCAGGCACTTATTACTTTGAAGAAAAACAAAGAAAGCCAATATTGTGTCTCAGAGATTTTCAGGAATACCTTG  
CTGCAGTTGAATCTTCAATGAAAGCCTTGTGACAGACAAGGAAAGTCTTAAAGTAGGACCACTGGACAGTGTA  
CGTATCTGGACAAAATTAAAAAATTCATAGCATCCATAGAAAAGAGAAAGATTCTTTAGGCAACTTGAAAATCA  
AATGGGAGAATTTATCAAACACGTGACTGACATGGATAAGAAATTGTTGGAAAGCCAGATTAAGCAACTTGAAC  
ATGGTTGGGAACAAGTGGAAACAGCAGATTCAAAAAGAGTATTCTCAGCAGGTAGTGGAAATATGATGAATTTACAA  
CCCTCATGAATAAGGTACAGGACACTGAGATTTCTCTGCAACAGCAGCAGCAACATCTACAGTTAAGGCTGAAGT  
CTCCAGAAGAACGGGCAGGGAACCAAGCATGATTGCTTGACCACTGACCTCCAGGCTACCAAGCATGGATTTT  
CTGTTTTAAAGGGGCAAGCTGAACTTCAGATGAAGAGGATTTGGGGAGAAAAGAAAAGAAGAAATTTGGAGGATG  
GAATAAATAACTTGAAGAAACAATGGGAAACATTGGAGCCATTACACTTAGAAGCAGAAAATCAGATTAAGAAGT  
GTGACATAAGGAACAAGATGAAAGAGACTATCTTATGGGCCAAGAATTTGTTGGGTGAACCTAATCCCTCCATTC  
CCCTTCTCCAGATGACATTTCTTTCACAGATCAGAAAGTGCAAAGTGACACATGATGGCATTCTAGCTAGGCAGC  
AGTCTGTGGAATCGTTGGCTGAAGAGGTCAAAGATAAGGTTCTTAGCCTTACAACCTATGAGGGCGGTGATTTAA  
ATAATACCCTAGAGGACTTACGGAATCAATACCAATGCTGGTTTTAAATCAACTCAAAGATCACAGCAATTAG  
AATTTAAGTTGGAAGAAAGAAGCAATTTTTTGTCTATAATAAGGAAGTTTCAACTTATGTTTCAAGAAAGTGAAA  
CACTGATAATTTCCAGGGTGGAGACAGCTGCCACGGAAGCTGAACTAAAACATCACCATGTTACTTTGGAGGCAT  
CTCAGAAGGAATTGCAAGAAATTGACAGTGAATCTCAACACATCTTCAGGAGCTAACAACATCTATGAGGAGC  
TGAATGTGTTTGAAAGATTATTTCTGGAAGATCAGTTGAAAAATCTTAAGATTAGGACCAACAGAATACAAAGAT  
TCATTGAGAATACATGTAATGAAGTGAACACAAGGTAAAGTTTGCAGACAATTCATGAAAAACATCAGCGC  
TTCAGGAGGAGGCTGACAGTATACAGCGCAATGAACTATTACTTAATCAAGAAGTAAATAAAGGTGTTAAAGAGG  
AGATCTATAATCTTAAAGACAGACTCACCGCTATTAAAGTGTGCATCTTACAGGTATTGAACTTAAAAAGTGT  
TTGACTATATTGGACTAACTGGGATTTTTCACAACTTGACCAATTACAAACCCAAGTATTGAAAAAGAAAAGG  
AACTTGAAGAAAAAATTAAGCAGTTGGACACATTTGAGGAAGAACATGGCAAATATCAGGCATTATTAAGTAAAA  
TGAGAGCTATTGATTTGCAAATTAAGAAAATGACTGAAGTAGTACTAAAAGCTCCTGATAGCTCTCCGGAAGCA  
GACGGCTCAATGCCCAAATTTTAAGTCAGAGAATTGAGAAAAGCCAAGTGTGTTATGTGATGAGATAATAAAGAAAT  
TAAATGAAAATAAGACCTTTGATGACTCATCAAGGAGAAAAGAAATACTACAAATAAAGCTGAATGCAGAAGAAA  
ATGATAAGTTATACAAAGTTCTCCAAAACATGGTATTAGAATCTCACCAAAAGAATTGGATGAAAAGAATTGTC  
AGGACAACTAGAACTTCCTTACATGTTTTAAATCAGATAAAATCTCAATTACAGCAGCCATTACTTATAAAT  
TGGAATTAACATATTCAAATGAAAAGGACAATTGTGGAGCATTTCAGGAGCAAGTTTGGGCAGAAATGTGTA  
GTATTAAAGCTGTGACTGCTATTGAGAAACAAAGAGAAGAAAACCTTCTGAAGCGAGTGATGTGGAGACAAAAC  
TACGTGAGTTTGAAGATCTTCAGATGCAGCTTAACACAAGCATTGATTGCGCACAAATGTCTTGAATCATGCTT  
ATGAAAATCTAACACGCTATAAAGAAGCAGTCACCAGGGCAGTGAGAGCATCACTTCCCTCGAAGCCATCATT  
TACCCTACAGAGTAGATGTTGGTAATCCAGAAGAATCTTTAGAGATGCCCTCTTCGAAAACAAGAGGAATTGGAAT  
CCACAGTAGCACGCATCCAGGACCTCACTGAGAACTGGGAATGATATCCAGCCCCGAAGCCAACTACAACCTC  
AGTATACTTTACAGGAAGTAGTTTCTAAGAAGCTCAGCAATGAAGGAAGCTTTCAAAGCACAGGAACTGAGGCAG  
AAAGGTATCTTGAGAATTACAAATGCTATAGAAAAATGGAAGAGGATATTACACTAACCTCAGCAAAATGGAGA  
CAGTTCTTGACAGTCCATGTCTCGTTGCCACTGTCTTACAGAGAAGCTTTAGAGCGCTTGGAAACAGAGCAAGG  
CCTTGGTGTCAAACTTTATATCAACCAAGAAGAGTTAATGAACTACGACAGATCCTTAGACTCTTGAGACTCA  
GGTGCACAGAAAAATGATGGCATATGTTTGTCTCAAGATTGTGTGCGCTCTGTGGGAGAAATGGCTGAGTTTGTCTGG  
AAGCTGCTAAAAGAGTGGGAGATGTGGTGCGAAGAAGTGAAGCAGGAATGGAATTTGTGAGTGAAGAAATTGAAC  
GAGAGGCAATTATTTTAGATAATCTTCAGGAAGAAGTCCCTGAAATTTCCAAAACAAAAGAGGCAGCCACCACAG  
AGGAACTCTCTGAGCTGCTAGACTGTTTATGCCAATATGGAGAGAAGCTGGAGAAGCAACAGCTGTTACTGACTC

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**FIGURE 291D**

TACTTCTTCAGCGCATCAGAAGTATCCAGAATGTTCTGAAAGCTCAGGGGCTGTGGAACTGTTCCAGCATTTC  
AAGAAATTACTTCTATGAAAGAACGATGCAACAAGCTTCTTCAGAAAGTTTCAGAAAAATAAAGAATTGGTGCAGA  
CTGAAATCCAAGAAAGACATTCCCTTCACAAAAGAGATAATTGCTTTGAAGAATTTCTTTCAACAGACCACAACCTT  
CATTCCAAAATATGGCATTCCAGGATCACCCAGAAAAGTCAGAACAAATTTGAGGAGCTTCAAAGCATCCTTAAGA  
AAGGGAAACTAACTTTTGAGAAATATTATGGAAAACTGCGAATCAAGTATTCCGAAATGTACACCATAGTCCCTG  
CAGAGATTGAATCCCAGGTGGAAGAAATGCAGAAAAGCTTTAGAAGACATAGATGAGAAGATTAGCAATGAAGTCT  
TAAAAAGCTCACCATCATATGCAATGAGGAGAAAAATAGAAGAAATTAACAATGGGCTTCATAATGTTGAAAAGA  
TGTTGCAGCAGAAAAAGCAAAAAATTGAGAAAAGCTCAAGAAATTCAAAGAAAAATGTGGGACGAGTTAGATCTAT  
GGCATTCCAAACTAAATGAGCTGGATTCTGAAGTTTCAGGACATTGTTGAACAGGACCCAGGACAGGCTCAAGAAT  
GGATGGATAACTTGATGATTCCCTTCCAGCAGTATCAGCAAGTATCAGAGAGCAGAGTGTAGAACCTCACAGT  
TGAATAAGGCCACAGTTAAGATGGAGGAATATAGTGACCTTCTGAAGAGCACTGAGGCTTGATAGAAAATACCA  
GTCATTTGCTGGCCAATCCTGCTGACTATGACTCTTTGAGGACACTGAGTCACCATGCTAGCACTGTGCAGATGG  
CTTTGGAAGATTTCAGAACAGAAGCACAATCTTTTACATTCAATCTTTATGGATCTAGAAGACCTGTCAATAATTT  
TTGAAACAGATGAATTAACCAATCCATACAAGAGTTAAGTAATCAAGTAACAGCTTTACAACAAAAATAATGG  
AAAGCCTTCCACAGATTTCAGCGAATGGCTGATGATGTGGTTGCTATTGAATCTGAAGTAAATCAATGGAAAAAA  
GAGTTTCAAAAATCAAACTATCCTATTATCAAAGAAATATTTGATTTTTCACCTGAAGAACATCTCAAACATG  
GGGAGGTCATACTTGAAAATATACGTCCCATGAAGAAAACCATTTGCTGAGATAGTGTCTTACCAAGTGGAACTGA  
GGTTGCCCCAAACAGGAATGAAACCTCTGCCTGTGTTTCAGCGGACAAATCAGCTTTTACAAGATATAAACTAT  
TGGAAAATGTGACTCAAGAACAAAATGAGTTATTAAAGGTAGTCATAAAACAGACCAATGAATGGGATGAAGAAA  
TAGAAAATTTGAAACAGATCTTAAATAATTATTTCAGCTCAGTTCTCCCTTGAACATATGTCACCAGACCAAGCTG  
ACAAGCTGCCACAACCTACAGGGAGAAATCGAACGTATGGAGAAACAGATTCTGAGTTTGAACCAGAGAGAAAGAAG  
ACCTGTTGGTGGACTTGAAGGCCACCGTACTAAACCTTCACCAGCATTGTAAGCAAGAACAAGAAGGAGTAGAAA  
GAGATAGGCTGCCAGCTGTAACATCAGAGGAAGGTGGAGTGGCAGAGAGGGATGCTTCTGAGCGGAAGTTGAACA  
GAAGAGGCTCCATGTCTTACCTGGCAGCAGTCGAGGAAGAGGTGGAAGAAAGTTCCGTGAAGAGCGATAATGGAG  
ATGAGAAGGCAGAGCCATCGCCTCAGTCTTGGTCTTCACTTTGGAAGCATGACAAGGACATGGAAGAAGACAGAG  
CTTCTCATCCTCTGGAACAATTGTTTCAGGAAGCATATGGGAAAATAAGCACCTCTGATAATTCCATGGCACAAA  
TCCTCACACCAGACTCACTAAACACTGAGCAAGGCCCAGAATGTTCCCTAAGGCCCAACCAACAGAAGAGGGCA  
CCACACCTCCTATTGAGGCTGACACTCTGGACTCTTCTGACGCGCAAGGAGGTTTGGAGCCCAGGGTGGAGAAAA  
CTAGGCCGGAGCCCACAGAAGTCCCTGCATGCCTGCAAGACCCAGGTGGCCGAGCTGGAGCTGTGGCTGCAACAAG  
CCAACGTGGCAGTTGAGCCGGAAACATTAAACGCAGACATGCAGCAGGTGCTGGAACAGCAGCTGGTAGGGTGCC  
AGGCTATGCTAACAGAGATTGAGCACAAGGTTGCCTTTCTGTTAGAGACTTGCAAAGATCAGGGCCTGGGAGATA  
ATGGAGCCACTCAACATGAGGCTGAAGCGCTTTCCCTGAAACTGAAAACAGTGAAGTGAATTTAGAAAAAGTCC  
AGATGATGCTTCAGGAGAAGCACAGTGAAGATCAGCATCCTACCATTCTAAAGAAATCCTCAGAGCCAGAGCATC  
AAGAAGCTCTCCAACCAGTTAACCTTTCTGAATTGGAATCCATTGTAAGTGAAGGCCACAATTCAGCAGACAAA  
AAGATTTCCAGCAGCAACAGGTTCTGGAGTTAAACCAATGGAACAGAAAGATTTTCATCAAATTCATAGAATTTA  
ATGCTAAGAAAAATGTGGCCCCAGTATTGCCAACATGATAACGATACAACCTCAGGAATCATCTGCAAGCAACCAGG  
CATCCAGCCCTGAAAAATGACGTTCCAGACTCGATCTTGTACCCCCAGGGCCAAAATGGAGATAAGTGGCAATATC  
TGCATCATGAACTCTCATCAAAAATAAAGCTCCCACTCCCTCAGCTTGTGGAGCCTCAGGTTTCCACAAATATGG  
GTATTCTACCCAGCGTGACTATGTATACTTTAGATACCCAACAACCTGAAGAACTGAAAACCTATACCACCCAAC  
TTGAAGACCTGCGCCAAGAAGCAAGTAACCTTCAGACACAGGAAAATATGACAGAAGAAGCATATATCAATTTGG  
ATAAAAAAATTGTTTGAATATTCTTGACCTCAGTCAGTGCTTCAGCAGTGTGGAGGAGATGCTGGAGATGCCCA  
GACTTTACAGGGAGGATGGTTCTGGCCAGCAGGTGCACTACGAGACGCTGGCTCTTGAGTTGAAGAACTTTATT  
TAGCGCTAAGTGACAAGAAGGGTGATCTTTTGAAAGCCATGACTTGGCCTGGCGAGAACACCAACTTGCTCCTTG  
AATGTTTTGACAACCTTCAAGTCTGCCTGGAGCACACTCAGGCTGCAGCTGTCTGTAGAAGCAAGTCCCTGAAAG  
CTGGCCTCGATTACAACCGCAGTTACCAGAATGAAATAAAGAGATTATATCATCAGCTCATTAAGAGTAAGACAT  
CTTTACAACAGTCTTTGAATGAAATCAGTGGGCAGAGTGTGCTGAACAGCTTCAGAAAAGCAGATGCATATACAG  
TGGAGCTGGAGAACGCCGAGAGCCGAGTGGCCAAACTAAGAGATGAAGGGGAGAGGCTTCATTTACCTTATGCTT  
TACTCCAGGAGGTTTACAAATTAGGGGATGTACTTGACAGTATGTGGGGAATGCTAAGAGCCAGGTACACAGAAC

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**FIGURE 291E**

TCAGCAGCCCTTTTCGTCAGTCTGAGAGCCAGCAAGATGCTTTGTTGCAAGGCATGGTGGAACTGGTGAAGATTGGGA  
AGGAAAAGCTTGCTCATGGCCACTTAAACAAACCAAAAGTAAAGTGGCGTTACAGGCTCAAATAGAAAATCACA  
AGGTTTTTTTCCAGAAGCTTGTGCTGACATGTTGTTGATCCAAGCATACTCTGCCAAAATACCTCCTTCTTTAT  
TGCAAAACAGAGAGACATTTTGGGCAGAACAAAGTAACAGAAGTTAAAATACTAGAAAGAAAAGTCACGCCAATGTG  
GTATGAAGCTGCAGAGTTTGTGTCAGAAATGGGAAGAATTTGATGAAAACATATGCATCTCTTGAAAAGGACCTGG  
AAATTCTTATATCTACATTGCCCTCTGTGAGTTTGGTGGAAAGAAACAGAGGAAAGATTAGTGGAAAGGATTTTCAT  
TTTACCAGCAAATAAAAAGAAACATTGGTGGAAAACACGCCCGGCTTTACCAAACCTCTGAACGAAGGCAAACAGT  
TGGTGGCGTCTGTGAGCTGTCTGAATTAGAGGGCCAGATCGCAAAACCTGGAAGAGCAGTGGTTGTCCCTGAACA  
AGAAAATTGACCATGAGCTCCACAGGCTGCAAGCTCTTCTCAAGCATCTGCTCAGTTATAACAGAGATTCCGGATC  
AGTTAACCAAGTGGTTGGAATCTTCCCAGCATACTCTGAATTACTGGAAAGAACAGTCCCTCAATGTGTCTCAGG  
ACTTGGATACAATCAGAAAGCAACATCAACAATTTTTTTGAGTTTTTCAAAAGAAGTTGATGAAAATCCTCCTTGA  
AGACTGCCGTTATCAGTATCGGGAACCAGCTTCTTCACCTGAAAGAACTGATACAGCTACACTGAGAGCTTCTT  
TAGCACAGTTTGAACAAAAATGGACAATGCTCATAACTCAACTTCAGATATTCAAGAAAACTTCACCAGCTTC  
AAATGGAGAAATTGCCGTCTCGTAAAGCAATCAGAGAAATGATTAGCTGGATGAACAATGTGGAGCATCAAACCT  
CAGATGAAGACTCCGTGCATTACCAAGTTCTGCATCTCAAGTTAAACATCTTCTTCAGAAGCACAAGGAGTTTA  
GAATGGAAATGGACTATAAACAGTGGATAGTTGACTTCGTTAACAGTCATTACTTCAGCTAAGCACCTGTGATG  
TAGAAAGCAAGCGCTATGAAAGAACGGAGTTTGCAGAGCACCTGGGGGAGATGAACCGCCAGTGGCACCCTGTAC  
ATGGAATGCTGAATAGAAAGATACAACATTTAGAACAACTTCTAGAAAGTATCACTGAGAGTGAAAATAAAATAC  
AGATCTTGAACAACTGGATGGAAGCACAAGAAGAGAGACTGAAAACCTTTACAAAACCTGAAAGTGTGATCTCAG  
TGCAGAAGCTGCTCCTGGACTGTCAGGATATAGAAAATCAACTTGCAATTAAATCCAAAGCACTAGATGAGTTGA  
AACAAAGTTATCTGACTTTGGAGAGTGGGGCAGTGCCATTGTTAGAAGATACAGCATCCCGAATTGATGAGTTAT  
TTCAAAAGAGAAGCAGTGTCTCACTCAGGTCAATCAGCTCAAAACCTCCATGCAGTCAGTTTTACAGGAGTGGGA  
AGATTTATGATCAACTCTATGATGAAGTGAATATGATGACAATCCGATTCTGGTACTGCATGGAACACAGCAAGC  
CTGTGGTGTATCATTGGAGACCTTGAGATGCCAGGTGGAGAACCTTCAGTCTCTGCAAGATGAAGCTGAGAGCA  
GTGAAGGGAGTTGGGAGAACTCCAGGAGTTATCGGCAAACTCAAAGGTCTCTGCCCTCTGTTGCTGAAATAA  
TCGAAGAGAAATGCCAAAATACTCATAAAAGGTGGACTCAGGTGAACCAAGCCATTGCAGACCAGTTGCAGAAGG  
CCCAGAGTCTGCTCCAGCTCTGGAAGGCCTATAGCAATGCTCATGGTGAAGCTGCCGCAAGGCTGAAGCAGCAGG  
AAGCAAAGTTTCAACAGCTCGCAAACATCAGCATGTCTGGAAACAACCTGGCAGAGATCCTGCCCCCAGCCCTGC  
AGGACATAAAGGAGCTGCAGCATGATGTGCAGAAAACAAAGAAGCCTTTCTCCAAAATTCCAGTGTCTTGGATC  
GACTCCCAACAACCCGAGAGTCCAGCACCCACATGCTCCTCCGGGCCCCCTGCACTCTCTCCAGAGGGCTGCTT  
ATTTGGAAGAGATGCTGCTTGTGAAAGCAAATGAATTTGAGTTTGTCTCTCACAGTTTTAAGGATTTTGGAGTCC  
GGCTGGAATCTTTAAAGGTCTTATTATGCATGAAGAAGAGAATTTGGATAGACTTCACCAACAGGAAAAAGAAA  
ATCCTGACTCATTCTGAATCATGTGCTGGCACTGACAGCCCAATCACCTGATATTGAACATTGGAATGAAGTGA  
GCCTCAAGCTCCCACTTAGTGACGTAGCTGTGAAGACGTTACAAAATATGAACCGGCAATGGATTCCGGCCACGG  
CCACGGCACTGGAGCGCTGCAGTGAGCTTCAGGGAATTGGATTGAATGAAAAGTTTCTTTATTGCTGTGAAAAGT  
GGATCCAACTTTTGGAGAAGATAGAAGAAGCACTCAAAGTGGATGTGGCTAACAGCCTTCTGAGCTCCTGGAGC  
AGCAGAAAACCTATAAGATGTTAGAAGCTGAAGTTTCTATAAACAGACAATTGCTGATTCTCCTATGTCACCCAGT  
CCTTACAACCTCTGGACACAACAGAAATAGAGAACAGACCAGAATTTATTACAGAATTCTCAAAGCTGACGGATC  
GGTGGCAGAATGCTGTCCAGGGTGTTCGGCAGAGGAAGGGTGACGTTGATGGGCTGGTGAGGCAGTGGAAGATT  
TCÀTACTTCTGTGGAGAAGTTGTTTTCGCTCCTCACTGACACCAGCCACCTGCTATCTGCAGTGAAGGGCCAGG  
AGCGCTTACGCTCTACCAAACCAGAAGTCTGATCCATGAGCTGAAGAATAAAGAAATTCATTTTCAAAGGAGGC  
GAACTACCTGTGCCCTAACCTTGGAAAGCTGGAGAAAAGTTACTGCTCACAACCTGACCTGAAAACATAAGAGTCTG  
TGGGTAGGAGAATCAGTCAACTTCAGGACAGCTGGAAAGACATGGAGCCCAGCTGGCAGAGATGATTAAGCAGT  
TCCAGAGCACTGTAGAGACCTGGGACCAGTGTGAAAAGAAAATCAAGGAGTTGAAAAGCAGGCTGCAAGTTTTAA  
AGGCACAAAGTGAAGATCCTCTTCCAGAGCTTCACGAGGACCTCCATAACGAAAAGAGCTGATTAAGGAACTAG  
AACAGTCTTTGGCTAGCTGGACTCAGAACTTGAAAGAACTTCAAACATGAAGGCGGACTTAACCCGGCACGTTT  
TCGTGGAAGATGTGATGGTTTTGAAGGAGCAAATAGAGCATTGTCACAGACAATGGGAGGACCTCTGCTTAAGGG  
TGGCCATACGTAAACAGGAGATTGAAGACAGACTCAATACATGGGTGTATTCAATGAAAAAATAAAGAGTTGT

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**FIGURE 291F**

GTGCCTGGCTGGTGCAGATGGAAAAACAAAGTTCTACAGACAGCGGACATTAGTATTGAAGAAATGATTGAAAAGT  
TACAGAAGGACTGCATGGAAGAAATAAACTTGTTTAGTGAAAACAAGTTACAGTTAAAGCAGATGGGTGACCAGT  
TGATCAAGGCCAGCAACAAATCAAGAGCAGCTGAGATCGATGACAAGCTCAACAAAATTAACGATCGTTGGCAAC  
ATCTTTTTGATGTATCGGATCAAGGGTGAAGAAGCTGAAGGAGACCTTTGCTTTTATTCAGCAGTTGGACAAAA  
ACATGAGCAACCTTCGCACCTGGTTGGCTCGAATTGAGTCTGAGCTTTCCAAGCCTGTTGTTTATGATGTCTGCG  
ATGATCAAGAGATCCAGAAGAGGCTCGCTGAGCAGCAGGATCTACAGCGAGATATTGAACAACACAGCGCAGGGG  
TGGAGTCCGTGTTTAAATCTGTGACGTCCCTACTGCACGACTCCGATGCCTGTGCAAATGAGACCGAGTGTGACT  
CGATCCAGCAGACCACCAGGAGCCTGGACAGACGCTGGAGGAACATTTGTGCCATGTCCATGGAGCGGCGCATGA  
AAATCGAGGAGACGTGGCGCCTGTGGCAGAAGTTTTTAGACGACTATTCTCGCTTTGAGGACTGGCTCAAGTCAG  
CTGAGAGGACGGCAGCCTGCCCAAATTCCTCAGAGGTGTTGTACACGAGTGCCAAAGAGGAACTGAAGAGGTTTG  
AGGCCTTTTCAGCGGCAGATTCTATGAGCGGCTCACTCAGCTGGAGCTCATCAACAAGCAGTACCGGCGGCTGGCCC  
GGGAGAACCGCACAGACACGGCCAGCAGGCTGAAGCAGATGGTCCACGAGGGCAACCAGCGCTGGGACAACCTTC  
AGAGGCGGGTTCACAGCCGTCTGCGGAGACTCAGGCATTTACCAACCAGAGGGAAGAATTTGAGGGCACCAGGG  
AGAGCATTCTGGTGTGGCTCACAGAGATGGACCTGCAGCTGACCAACGTGGAGCACTTCTCAGAGAGTGACGCCG  
ATGACAAGATGCGCCAACCTGAATGGCTTCCAACAGGAAATTACATTAAATACCAACAAGATTGATCAGCTCATTG  
TGTTTGGGGAGCAGCTGATTGAGAAGAGCGAGCCCCCTGGATGCTGTGCTGATTGAGGATGAGCTGGAGGAACTCC  
ACCGCTACTGCCAGGAGGTGTTTGAAGGGTCTCCCGGTTCCACGGCGGCTCACCTCCTGCACTCCGGGCTTGG  
AAGATGAAAAGGAGGCCTCTGAGAATGAAACAGACATGGAAGACCCAGAGAAATCCAGACTGATTCTTGGCGTA  
AACGGGGAGAGAGCGAGGAACCGTCATCTCCTCAGTCCCTGTGTCTATCTAGTGGCCCCAGGGCAGGAGCGGTCTG  
GCTGCGAGACCCCTGTTCAGCGTGGACTCCATCCCCCTGGAGTGGGACCACACAGGCGACGTGGGGGGCTCCTCCT  
CTCACGAAGAGGACGAGGAGGGGCCATACTACAGCGCACTGTCAAGTAAATCCATTTGCGATGGCCACTCGTGGC  
ATGTTCCCCGACAGCCCTTCTGTCCCCGAGCATCACTACAAGCAAATGGAAGGTGACAGGAATGTTCCACCTGTTT  
CCCCTGCGTCCAGCACCCCTTATAAACCACCTATGGAAGCTACTATTACCTCCAGGCACGGATGGTGGCAAAG  
AAGGCCCGGAGTCCCTGAATGGCAACCCACAGCAGGAAGACGGGGGACTGGCCGGTATCACAGAGCAGCAGTCAG  
GTGCCTTCGACAGATGGGAGATGATTCAAGCACAGGAGCTTACAATAAGCTCAAAATAAAACAAAATTTGCAAC  
AGCTGAACCTCTGATATCAGCGCCATCACTACTTGGCTGAAAAAACTGAAGCAGAGCTGGAAATGTTAAAGATGG  
CAAAGCCTCCCTCTGATATCCAGGAAATAGAACTGAGAGTGAAGAGACTGCAGGAGATACTGAAAGCCTTTGACA  
CTTACAAGGCATTAGTGGTCTCTGTCAACGTGAGCAGCAAGGAATTTCTGCAAACCGAGAGCCCCGAATCCACAG  
AGCTCCAAAGTAGACTCCGCCAGCTGAGCCTGCTCTGGGAAGCAGCACAGGGCGCAGTGGACAGCTGGAGAGGGG  
GCTTACGACAGTCGCTCATGCAGTGCCAGGACTTCCACCAGTTGAGTCAAAATCTGCTGCTGTGGTTAGCGAGTG  
CCAAGAACCGGAGGCAGAAGGCTCATGTCAACGATCCAAAGGCAGACCCCGGGCTCTCCTAGAGTGTGCGAGGG  
AACTAATGCAACTGGAAAAGGAGCTGGTAGAACGTCAACCTCAAGTGGACATGTTACAGGAGATTTCAAACAGCC  
TTCTCATTAAAGGGACATGGAGAAGACTGTATTGAAGCTGAAGAAAAGGTGCATGTTATTGAGAAGAACTCAAAC  
AGTTACGGGAGCAAGTGTCCCAAGATTTAATGGCCTTGCAGGGAACCCAGAACCCAGCCTCACCCCTGCCAGCT  
TCGACGAGGTAGACTCGGGGGACCAGCCTCCTGCAACATCCGTGCCAGCTCCCCGAGCAAAGCAGTTTCAGAGCAG  
TGAGAACTACAGAAGGCGAGGAGGAGACAGAGAGCAGGGTCCCCGGCAGCACACGGCCACAGCGCTCCTTCCTCT  
CAAGGTGGTCCGGGCAGCCCTACCCCTGCAGCTGCTCCTCCTGCTGCTGCTCCTGGCCTGCCTGCTGCCCT  
CCTCCGAAGAAGACTACAGCTGCACTCAGGCCAACAACTTTGCCCGGTCCTTTTACCCCATGCTGAGGTACACCA  
ATGGGCCACCCCCACATAGAGGGCATAGCTGGCCACAGTGCTACACCACCTGCCTGATTGCCAAGGGTGCCCG  
CACGTGGCCCCAGACCAATCTGAGTGACTTAGTGTTGGCAAGGTCCCGGGACCTGTGCAGACTTCTTCTGGGCTT  
ACCCAGCACGGGCTCCCTGGAGCCCAGGGCAGCTTTCAGATTGTGTTCTCCTCCCAGGAGCAGGGAACCTGTGTGG  
CAGGTGCCCCGGGTACTTTGGCAGAACTAGTTGATTAGTTAGGGATCTCTGGAATGTGAGTTTCTGAAAGAGC  
CAAGCACTTTGTGAATTCTGGTTTGTGTTGTAAAACAGCATTATTATAATGTAGGTATGGTCAATGAGCAGTGGTG  
TCCATCACATATATTATAGAAGCAAGCGAGCACATTCCACCCTAGAAATGGTTCAGAAACTCATAGGCACCCCTTA  
GCTGATGGAAACAATCAATCATATTTAATACGCTTAGAATCAGTTTTACTCCAATCAGCTGGCAATTTTGAGCTG  
CCGGTTATACACCAAAATGTTCTGTTTCAGTACCTAGCTCTGCTCTTTTATATTGCTTTAAATTTTAAAGAAATT  
ATATTGCATGGATGTGGTTATTTGTGCATATTTTTTAACAATGCCCAATCTGTATGAATAATGTAAACTTCGATT  
TTTTTTTAAAAAATTAGATTTTAGCTGGAGCTTTTGACTAATGTAAAGTAAATGCCAACTACCGACTTGATAG

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**FIGURE 291G**

GGATGTTTTGTAAAGTTAATTTCTAAGACTTTTTCACATCCAAAGTGATGCTTTGCTTTGGGTTTTAACTGTTT  
GGCCACGGCGGGGTGGGGCGGGGGTGGTACAGAACTTGAAGCTGTTTGTGATATGTACAACTCAGATGTT  
TCTCATTAAAAACAAAATTAGCCAGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 292**

MASSPELPTEDQGSWGIDDLHISLQAEQEDTQKKAFTCWINSQARHTSPSVISDLFTDIKKGHVLLDLLEVL  
GQQLPRDKGSNTFQCRINIEHALTFLNRNSIKLINIHVTDIIDGNPSIILGLIWTIILHFHIEKLAQTLSCN  
PSLDDVSVVDSSPASSPPAKKCSKVQARWQMSARKALLWAEQCATYESVNVTDKSSWRNGMAFLAIHALRP  
DLIDMKS VKHRSNKDNLREAFRIAEQELKIPRLLEPEDVDVDPDEKSIMTYVAQFLQYSKDAPGTGEEAQGKVK  
DAMGWLTLQKEKLQKLLKSENDTYFKKYNLSLSFMESFNEEKSFSLDVLSIKRDLDELDDHLQLREAWDGLDH  
QINAWKIKLNYALPPPLHQTEAWLQVEEELMDEDLASQDHSQAVTLIQEKMTLFKSLMDRFEHHSNILLTFENK  
DENHLPPLVPPNKLEEMKRRINNILEKKFILLLEFHYYKCLVLGLVDEVKSKLDIWNKYGSRESVELLEDWHKF  
IEEKEFLARLDTSFQKCGEIKYKNLAGECQNINKQYMMVKS DVCMYRKNIYNVKSTLQKVLACWATYVENLRLLRA  
CFEETKKEEIKEVPFETLAQWNLEHATLNEAGNFLVEVSNDVVGSSISKELRRLNKRWRKLVSKTQLEMNPLPMI  
KKQDQPTFDNSGNILSKEEKATVEFSTDMSVELPENYNQNIKAGEKHEKENEEFTGQLKVAKDVEKLIGQVEIWE  
AEAKSVLDQDDVDTSMEESESLKHLIAKGSFDELMARSEDMLQMDIQNISSQESFQHVLTGLQAKIQEAKQVQI  
NVVKLIAALKNLTDVSPDLDIRLKMEESQKELESYMMRAQQLLGQRESPGELISKHKEALIISNTKSLAKYLKAV  
EELKNNVTEDIKMSLEEKSRDVC AKWESLHHELSLYVQQLKIDIEKGKLSDNILKLEKQINKEKKLIRRGRTKGL  
IKEHEACFSEEGCLYQLNHHMEVLRELCEELPSQKSQQEVKRLLDYEQKIERLLKCASEIHMTLQPTAGGTSKN  
EGTITTSENRGGDPHSEAPFAKSDNQ PSTEKAMEPTMKFSLASVLRPLQEESEMEKDYSASINSLERYD TYRDI  
LEHHLQNNKFRTSDFSSEEDRSSCLQAKLTDLQVIKNETDARWKEFEIISLKENHVNDIKKPFVIKERDTLK  
ERERELQMTLNTRMESLETALRLVLPVEKASLLCGSDLP LHKMAIQGFHLIDADRIYQHLRNIQDSIAKQIEIC  
NRLEEPGNFVLKELHPFDLHAMQNIILKYKTQFEGMNRHVQRSED TLKALEDFLASLR TAKLSAEPVTDLSASDT  
QVAQENTLTVKNKEGEIHLMKDKAKHLDKCLKMLDMSFKDAERGGDTSCENLLDAFSIKLSETHGYGVQEEFTEE  
NKLLEACIFKNNELLKNIQDVQSQISKIGLKDPTVPAVKHRKKS LIRLDKVLDEYEEKRLHQEMANS LPHFKDG  
REKTVNQQCQNTVVLWENTKALVTECLEQCGRVLELLKQYQNFKSILTTLIQKEESVISLQASYMGKENLKKRIA  
EIEIVKEEFNEHLEVVDKINQVCKNLQFYLNKMKTFEPPFEKEANIIVDRWLDINEKTEDYYENLGRALALWDK  
LFNLKNVIDEWTEKALQKMEHLQLTEEDRERLKEELQVHEQKTSEFSRRVAEIQFLLQSSEIPLELQVMESILN  
KMEHVQKCLTGESNCHALSGSTAE LREDLDQAKTQIGMTESLLKALSPSDSLEIFTKLEEIQQQILQQKHS MILL  
ENQIGCLTPELSELKKQYESVSDLFNTKKS VLDHFSKLLNDQCKNFNDWFSNIKVN LKECFESSETKKSVEQKL  
QKLSDFLTLEGRNSKIKQVDSVLKHVKKHLPKAHVKELISWLVGQEFELEKMESICQARAKELED SLQQLRLQD  
DHRNLRKWL TNQEEKWKGTEEPGEKTELFQALARKREQFESVAQLNNSL



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**FIGURE 293**

GGCACGAGGCTGCGGCCGCCAGCTCCCGCGACCGCCTCTCCTGCCCCCTCGCCGGTACCTCAGCAAGGTGCCACTA  
GAAGCGCCAGGCTGGGGCCGCCTCTGAGCGCCCCGCGGGGGCCATGGATGGTGAAACAGCAGAGGAGCAGGGGGG  
CCCTGTGCCCCCGCCAGTTGCACCCGGCGGACCCGGCTTGGGCGGTGCTCCGGGGGGGCGGCGGGAGCCCAAGAA  
GTACGCAGTGACCGACGACTACCAGTTGTCCAAGCAGGTGCTGGGCCTGGGTGTGAACGGCAAAGTGCTGGAGTG  
CTTCCATCGGCGCACTGGACAGAAGTGTGCCCTGAAGCTCCTGTATGACAGCCCCAAGGCCGGCAGGAGGTAGA  
CCATCACTGGCAGGCTTCTGGCGGCCCCCATATTGTCTGCATCCTGGATGTGTATGAGAACATGCACCATGGCAA  
GCGCTGTCTCCTCATCATCATGGAATGCATGGAAGGTGGTGAGTTGTTTCAGCAGGATTTCAGGAGCGTGGCGACCA  
GGCTTTCAGTGAGAGAGAAGCTGCAGAGATAATGCGGGATATTGGCACTGCCATCCAGTTTCTGCACAGCCATAA  
CATTGCCCACCGAGATGTCAAGCCTGAAAACCTACTCTACACATCTAAGGAGAAAGACGCAGTGCTTAAGCTCAC  
CGATTTTGGCTTTGCTAAGGAGACCACCCAAAATGCCCTGCAGACACCTGCTATACTCCCTATTATGTGGCCCC  
TGAGGTCTGGGTCCAGAGAAGTATGACAAGTCATGTGACATGTGGTCCCTGGGTGTCATCATGTACATCCTCCT  
TTGTGGCTTCCCACCTTCTACTCCAACACGGGCCAGGCCATCTCCCCGGGGATGAAGAGGAGGATTGCGCTGGG  
CCAGTACGGCTTCCCCAATCCTGAGTGGTCAGAAGTCTCTGAGGATGCCAAGCAGCTGATCCGCCTCCTGTTGAA  
GACAGACCCACAGAGAGGCTGACCATCACTCAGTTCATGAACACCCCTGGATCAACCAATCGATGGTAGTGCC  
ACAGACCCCACTCCACACGGCCCCGAGTGTGTCAGGAGGACAAAGACCACTGGGACGAAGTCAAGGAGGAGATGAC  
CAGTGCCTTGGCCACTATGCGGGTAGACTACGACCAGGTGAAGATCAAGGACCTGAAGACCTCTAACAACCGGCT  
CCTCAACAAGAGGAGAAAAAAGCAGGCAGGCAGCTCCTCTGCCTCACAGGGCTGCAACAACCACTAGTCTATGGG  
GCCTTGGAGGAGCCTGGCCTCTCAGCCTGCATAACAGACTGAAATGTGCTCAGGCCCTGGCCAGGAGGGCCCAGG  
GTCATTCTTTTAACAAAAGGATTATTTTGTGTGTTTTAATTTGTCACTCGGAACTTCAGGATGGAGGACCCTGA  
CCCTAAGCCTCCTTCAGATCTCTGGCCCAGGCTCAAGCCCTAGAGATGGGCAGGGCCTAGGGGCTGGGAGCTGCC  
TGCTGCCATAGCAGCACCTTTAGCTAGGTTGGCCCCGAGTGAGGCCTCTGTGCTGTCCTGCCCTGGTGCATGGCCT  
TAGCTTTCTAGGCCACTGGGAGTTGTGGCTGGGCTTCCCATCTTCCACAGAGACATCTCCCTGTGGGATGGGCAG  
ATGGGCCTGGCCTTGAGAAAGGCATTGGCCATTGGTTGCCATGGTGACCAGGGACCACGTTGCTGCCTGTGAATG  
CTGAGTGAGCGAGTAAGGGAGGAGGGGCGATTGAGGGTTACCTCTGCCTTGGGGAGGCTGATTTCTCACACACT  
GGCTGGCCCTCTCATTCTCACTCCTCCTTGGGCCCTGAGGCTGCTGGATCCGGTCTGCCTGCCTCCCTGTGCAGT  
CCAGCCCTGCCTTGCTGCAGCCCCAGCCCAGATGGCACTCAGCGCTCTCCCCTGAGGGAGTCCCTGGGCCTAGCC  
ATCCCCCTCACTATTCCCAGCCCAAAGGGTGACTTTTTCATCTGAACTTAAGGTGGGAGATATTTTTAACTTTTTTC  
CACTTTGGAAAATGTCACTGTGACAAAAGCCAGCATACTTTCCCTGCACCCATCTGCTCACCAGATCTCAGGCAG  
GAAAGCCCCCTCTCTGTTGAAGTCAGGGGCTATCTTTTGGTATACTTGTGTGAAAGTGGCTGGTTGGGAGCAGAGC  
TAAGTGGCTTCCCATTAACTGAGGTCTCTTTCTTTACTCTGGGTCAGACCTGAGGTTGGGGAAGGCGACTGAGC  
CATGCTCAGAATGTCTGGTCCTGGCTTGGGCCTGAGTAGGGCAGAGAGGGCCTTTTCATGGCTGATCAGAGCTTAC  
CAGCCCCACCCACCATGGTAGCCTTAGGGTGCTGAGTGCCTGATACTGCCTGACAAGTGCCTGACACGCAGCCT  
AGTTCCTTCTTGCCCCCTCTCTCACTGGCTGGGAAACCTAGACCATGTGAGATAGGACAACACTGCTGGGTTTT  
ACATCCAGATAGTAATAAACACCATTTTCATCATT

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**FIGURE 294**

MDGETAEEQGGPVPPFVAPGGPGLGGAPGGRREPKKYAVTDDYQLSKQVLGLGVNGKVLECFHRRTGQKCALKLL  
YDSPKARQEVDDHHWQASGGPHIVCILDVYENMHHGKRCLLIIMECMEGGELFSRIQERGDQAFTEREAAEIMRDI  
GTAIQFLHSHNIAHRDVKPENLLYTSKEKDAVLKLTDFGFAKETTONALQTPCYTPYYVAPEVLGPEKYDKSCDM  
WSLGVIMYILLCGFPPFYSENTGQAISPGMKRRIRLGQYGFNPWEVSEDAKQLIRLLLKTDPTELTITQFMN  
HPWINQSMVVPQTPLHTARVLQEDKDHWEVKEEMTSALATMRVDYDQVKIKDLKTSNNRLLNKRRKKQAGSSA  
SQGCNNQ

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**FIGURE 295A**

[illegible]

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**FIGURE 295B**

GAACCAGAAGGCCTATTACCCAGCATCGTGGCCAACAGGTGGCTGGCCGTGCGGCTGGAGTGTGTGGGCAACTG  
CATCGTTCTGTTTGCTGCCCTGTTTGCGGTGATCTCCAGGCACAGCCTCAGTGCTGGCCTTGTTGGGCTCTCAGT  
GTCTTACTCATTGCAGGTACCCACGTACTTGAAGTGGCTGGTTCGGATGTCATCTGAAATGGAAACCAACATCGT  
GGCCGTGGAGAGGCTCAAGGAGTATTAGAGACTGAGAAGGAGGCGCCCTGGCAAATCCAGGAGACAGCTCCGCC  
CAGCAGCTGGCCCCAGGTGGGCGGAGTGGAAATCCGGAACACTGCTGCGCTACCGAGAGGACCTGGACTTCGT  
TCTCAGGCACATCAATGTCACGATCAATGGGGGAGAAAAGGTCGGCATCGTGGGGCGGACGGGAGCTGGGAAGTC  
GTCCCTGACCCTGGGCTTATTTTCGGATCAACGAGTCTGCCGAAGGAGAGATCATCATCGATGGCATCAACATCGC  
CAAGATCGGCCTGCACGACCTCCGCTTCAAGATCACCATCATCCCCAGGACCCTGTTTTGTTTTCGGGTTCCT  
CCGAATGAACCTGGACCCATTAGCCAGTACTCGGATGAAGAAGTCTGGACGTCCCTGGAGCTGGCCCACCTGAA  
GGACTTCGTGTGTCAGCCCTTCCTGACAAGCTAGACCATGAATGTGCAGAAGGCGGGGAGAACCTCAGTGTGCGGCA  
GCGCCAGCTTGTGTGCTAGCCCCGGGCCCTGCTGAGGAAGACGAAGATCCTTGTGTTGGATGAGGCCACGGCAGC  
CGTGGACCTGGAAACGGACGACCTCATCCAGTCCACCATCCGGACACAGTTCGAGGACTGCACCGTCTCACCAT  
CGCCCACCGGCTCAACACCATCATGGACTACACAAGGGTGATCGTCTTGACAAAGGAGAAATCCAGGAGTACGG  
CGCCCCATCGGACCTCCTGCAGCAGAGAGGTCTTTTCTACAGCATGGCCAAAGACGCCGGCTTGGTGTGAGCCCC  
AGAGCTGGCATATCTGGTCAGAACTGCAGGGCCTATATGCCAGCGCCCAGGGAGGAGTCAGTACCCCTGGTAAAC  
CAAGCCTCCACACTGAAACCAAAACATAAAAACCAAACCCAGACAACCAAAACATATTCAAAGCAGCAGCCACC  
GCCATCCGGTCCCCTGCCTGGAAGTGGCTGTGAAGACCCAGGAGAGACAGAGATGCGAACCACCAAAAACACGCA  
CACCTGCCCCCTGGTGCCCTGAGACAGACACAGCCTCACGCCCCAGGAATGCAAGTGGTTTTCTGGTGCTTC  
CCACGGAGGAGTTTTGGCAGCCAGACTTCTGGAGGAATTGGTTGTATAGAAGATCCTAGTGACCAAATTCAGCCT  
ACTGCCCTCGGATCTCTCCAGCCGAAGTCTGTGGACTGCAAGTCTTTGAGATGCTTCTGGCTCCCATCACCTCTAA  
CATCCTTGTCTGGGTCTACCAGGAACGCTTCATTTCTTGGGGCTGCAGTTTTGTGGTTGAGGGGCCTGGAGAAA  
ATCATTTTCTCCCCTTGGCAGTGTCCCAGGGCCCTGGATGGTCCTCTTACCAACATCTGGTCTTCCAGGCACTCA  
AAAGCTGGGAACCAGCATCTCAGCGCCAGCTCTACCAGTTCTCGTTTTGGGCCAGAGGCAGCCTCTGCACTCCCA  
CGCCTGTCCTCCTGGAAGGGACCTGGTTGGACTAACGGCTAACCTGGACCTGGAAGTGTAGGGCCAGGGGATTGT  
CTCAGGGCCGACGTTCCACCTGGGGCTTCCCTCCCCACCCACCCCGACTCCAGGCTTTCCCTTTTTTCTTTTGT  
CAACATTGTAAGAACAATCAATGCTGTTATTACTGATCCCAACATGATTGATGTGGGGTAAATATTAAGGAGATG  
GCCTCATGGGAATTTGACCTTGACTAGAAATAGAGACTGAGAGTGAGCAACCAGCTGGAAGGTACTATGCCAGTC  
CTAGCAGAAAAATGTGTTAGGGGCTGGCCCAAAGCAGTGTGGTTGCTTACAGTGTGATTGATTTTGTCTTT  
TTTCTTACCACCTCTTTTCTTCCCTCTCATGGTACCTGCTCATGGTTATGAAGCTTTCAAAGTAAAGAACACGA  
AATAC

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**FIGURE 296**

MALRGFCSADGSDPLWDWNVTWNTSNPDFTKCFQNTVLVWVPCFYLVACFPFYFLYLSRHDRGYIQMTPLNKTKT  
ALGFLLWIVCWADLFYSFWERSRGIFLAPVFLVSPDLLGITLLATFLIQLERRKGVQSSGIMLTFWLVALVCAL  
AILRSKIMTALKEDAQVDLFRDITFYVYFSLLLIQLVLSCFSDRSPLFSETIHDNPNCPESSASFLSRITFWWIT  
GLIVRGYRQPLEGSDLWSLNKEDTSEQVVPVLVKNWKKCAKTRKQPVKVYSSKDPAPKESKVDANEEVEAL  
IVKSPQKEWNPSLFKVLYKTFGPYFLMSFFFFKAHDLMMFSGPQILKLLIKFVNDRKAPDWQGYFYTVLLFVTAC  
LQTLVLHQYFHCIFVSGMRIKTAVIGAVYRKALVITNSARKSSTVGEIVNLMSVDAQRFMDLATYINMIWSAPLQ  
VILALYLLWNLGPSVLAVGAVMVLMPVNAVMMAMKTKTYQVAHMKSKDNRIKLMNEILNGIKVLKLYAWELAFK  
DKVLAIRQEELKVLKKSAYLSAVGTFTWVCTPFLASVSLKRLRIFLSHEELEPDSTIERRPVKDGGSNTSITVRNA  
TFTWARS DPPTLNGITFSIPEGALVAVVGQVCGKSSLLSALLAEMDKVEGHVAIKGSVAYVPQQAWIQNDSLRE  
NILFGCQLEEPYRSVIQACALLPDLEILPSGDRTEIGEKGVNLSGGQKQRVSLARAVYSNADIYLFDDPLSAVD  
AHVGKHIFENVIGPKGMLKNKTRILVTHSMSYLPQVDVIVMSGGKISEMGSYQELLARDGAFAEFLRTYASTEQ  
EQDAEENGVTGVSGPGKEAKQMENGMLVTD SAGKQLQRQLSSSSSYSGDISRHHNSTAELQAEAKKEETWKIME  
ADKAQTGQVKLSVYWDYMKAI GLFISFLSIFLFMCNHVSALASNYWLSLWTD DP IVNGTQEHTKVRLSVYGALGI  
SQGI AVFGYSMAVSIGGILASRCLHVDLLHSILRSPMSFFERTPSGNLVNRF\$KELDTVDSMIPEVIKMFMSLF  
NVIGACIVILLATPIAAIIIPPLGLIYFFVQRFYVASSRQLKRLESVSRSPVYSHFNETLLGVS VIRAFEEQERF  
IHQSDLKVDENQKAYYPSIVANRWLAVRLECVGN CIVLFAALFAVISRHSLSAGLVGLSVSYSLQVTTYLNWLVR  
MSSEMETNIVÄVERLKEYSETEKEAPWQIQETAPPSSWPQVGRVEFRNYCLRYREDLDFVLRHINVTINGGEKVG  
IVGRTGAGKSSLTGLFRINESAEGEI I IDGINIAKIGLHDLRFKITIIPQDPVLFSGSLRMNLD PFSQYSDEEV  
WTSLELAHLKDFVSALPDKLDHECAEGGENLSVGQRQLVCLARALLRKTILVLDEATAAVDLETDDLIQSTIRT  
QFEDCTVLTIAHRLNTIMDYTRVIVLDKGEIQEYGAPSDLLQQRGLFY\$MAKDAGLV ,

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**FIGURE 297**

TGGATGGGCGGCAACATGTCTGTGGCTTTCGCGGCCCCGAGGCAGCGAGGCAAGGGGGAGATCACTCCCGCTGCG  
ATTCAGAAGATGTTGGATGACAATAACCATCTTATTCAGTGTATAATGGACTCTCAGAATAAAGGAAAGACCTCA  
GAGTGTCTCTCAGTATCAGCAGATGTTGCACACAACTTGGTATACCTTGCTACAATAGCAGATTCTAATCAAAAT  
ATGCAGTCTCTTTTACCAGCACCACCCACACAGAATATGCCTATGGGTCTGAGGGATGAATCAGAGCGGCCCT  
CCCCACCTCCACGCTCTCACAACATGCCTTCAGATGGAATGGTAGGTGGGGTCTCCTGCACCGCACATGCAG  
AACCAGATGAACGGCCAGATGCCTGGGCCTAACCATATGCCTATGCAGGGACCTGGACCCAATCAACTCAATATG  
ACAAACAGTTCATGAATATGCCTTCAAGTAGCCATGGATCCATGGGAGGTTACAACCATTCTGTGCCATCATCA  
CAGAGCATGCCAGTACAGAATCAGATGACAATGAGTCAGGGACAACCAATGGGAAACTATGGTCCCAGACCAAAT  
ATGAGTATGCAGCCAAACCAAGGTCCAATGATGCATCAGCAGCCTCCTTCTCAGCAATACAATATGCCACAGGGA  
GGCGGACAGCATTACCAAGGACAGCAGCCACCTATGGGAATGATGGGTCAAGTTAACCAAGGCAATCATATGATG  
GGTCAGAGACAGATTCTCCCTATAGACCTCCTCAACAGGGCCCACCACAGCAGTACTCAGGCCAGGAAGACTAT  
TACGGGGACCAATACAGTCATGGTGGACAAGGTCTCCAGAAGGCATGAACCAGCAATATTACCCTGATGGAAAT  
TCACAGTATGGCCAACAGCAAGATGCATACCAGGGACCACCTCCACAACAGGGATATCCACCCCAGCAGCAGCAG  
TACCCAGGGCAGCAAGGTTACCCAGGACAGCAGCAGGGCTACGGTCTTCACAGGGTGGTCCAGGTCTCAGTAT  
CCTAACTACCCACAGGGACAAGGTCAGCAGTATGGAGGATATAGACCAACACAGCCTGGACCACCACAGCCACCC  
CAGCAGAGGCCTTATGGATATGACCAGGGACAGTATGGAAATTACCAGCAGTGAAGAAAGTACTTACATTCCAGTA  
GCCAGTATCTATTAGCAGCCATATTGTACCTCAGCACTGTGGACACCTCCCTGTGAAGAGATCCTTCCATTCCA  
TCTAGTTTTTGGAAAAACCTTGTGGATAAGTGGCTGTTTCATCAGTAAGCAGCCTTTGTGGTTTTAGTTATAAAG  
GCTTTAGTAGCTCAAAAATACTCTTGATTTTACATTTCTACTCTAGATGGCAACATTGGACAGAAAAATGCAATGA  
CATAACCAATTTGTAATGATTTTGGAACTGTGTTTCAAAATGGACTGTTACAGACTGAAAGGTGTGAACAGCTTTG  
TATGTTTATGAAGGTAAGGGAATTTAATACTTTTCCACAGATTTTTTTGTAAGGGGAAGAGGGAAATGTACACT  
TTTTACAGCAGCAATATTTTGTATATTATGTTTATTTTATGTGGTGAATATGCAAGGCGGTACACTACGCACTGG  
ACAGCATCAGAAATCCTCTGTTAATGTGGACTGGAGCATGGTAGATGCTTGATTGTTTTGGTCTCAAAATGGTGT  
GCTATAAAGATAAAGGTGAGGGGAAGACAAAGCACACCATATGTCCACTGTTCTGTTCTCATAGAGGAAATTCAA  
ATCCCTTTTATCTATTAGATAATCAAGGGCACTGTGATACAGTTTTTGAGTAAAAAGACATTTTTTTAAAGCCTTC  
CAGTTTTGTGGATTAAACCTTTTTTATAAAGATCATTTATAATACTGTTTTTAAATGTGAGGCAATAAGAATTACT  
TTGTGTTGGATCTGAGGAGGCTTTGGTAAACAGTTTTTATCTAAATGAAAGTGGTAATCCTCTTCTAAATAGCA  
ATAACTGAAATGAAAGTGTTAATTTTACCTTGTTTGAGTTATCAGGGAACCTTAGTAAGTAATATCAAAGCATT  
TATAAATGATATCAAAGAAGAGTCAACATTGATCCAGTCATTTTATTTTGTAAATATTGAGGGATAATTGGTTATT  
AAACTGAATAGTTCAGGAGACTTTACAAACCTTTGTTTCACTTTCTTATCTGGAAATAATATCATTTATAAAGG  
GACACTTTTATGTTTTTCCCTTTTTTATGTTGGTTGATATAACACAAAGAGATATTTAGGAAAATGCTTATTGAT  
GAGGTTTATTCTATCTGTTTTTAAAGCACCGAGGTTGCATTCTAGATAACCTTGTTTATTAGCATGGCATATTTT  
AATCATTATTTGAGACTGTCCTGTGCCTGATTATTTTAGCTAAATTCAGGGAGATTGCGTGGGGCAGGAAAGCAT  
GCATTGAAAAATTTCTAACCACGGTTATTTAAGCATAATCTGAAAACATCTAGCCCAAAGGTAAGTTGCTATTTT  
CATCACAGTTGCCTATGCCCAGGGAATAAGATGTATTCTTTATAATTGAATTGGTTTTTCCCACGTCTAACTGGA  
AACAAAACAGAAGGGGCGTCATAAATTTGAATAAGCAGAACATACTGTTCTCAACATACTGTAATCAAAGGAGG  
AATTTTCAAGTGGGTCCTGTTGTGTGTATGAGAGAGAGAGTGTGTGTTTGTGTGTTTCAAGGTCAGAACAGGTTTTT  
TTGTTTTTGTGTTTTTGTCTTTGTTTTTTTTTTTTCAGATGGAGTCTTGCTCTTGTCGCCCAGGCTGGAGTGCAGT  
GGCGCAATCTCAGCTCACTGCAACCTCCGCTCCAGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTGA

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**FIGURE 298**

MGGNMSVAFAAPRQRGKGEITPAAIQKMLDDNNHLIQCIMDSQNKGKTSECSQYQQMLHTNLVYLATIADSNQNM  
QSLLPAPPTQNMPMGPGGMNQSGPPPPPRSHNMPSDGMVGGGPPAPHMQNQMNGQMPGPNHMFMQGFGPNQLNMT  
NSSMNMPSSSHGSMGGYNHVPSSQSMFVQNQMTMSQGQPMGNYGPRPNMSMQPNQGPMMHQQFP SQQYNMPQGG  
GQHYQQQPPMGMMQVNOGNHMMGQRQIPPYRPPQQGPPQQYSGQEDYYGDQYSHGGQGPPEGMNQQYYPDGNS  
QYGQQQDAYQGPPPPQQGYPPQQQQYPGQQGYPGQQQGYGPSQGGPGPQYPNYPQGQGGQYGGYRPTQPGPPQPPQ  
QRPYGYDQGQYGYNYQQ

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**FIGURE 299**

GAGGCAGTTCTGTTGCCACTCTCTCTCCTGTCAATGATGGATCTCAGAAATACCCCAGCCAAATCTCTGGACAAG  
TTCATTGAAGACTATCTCTTGCCAGACACGTGTTTCCGCATGCAAATCGACCATGCCATTGACATCATCTGTGGG  
TTCCTGAAGGAAAGGTGCTTCCGAGGTAGCTCCTACCCTGTGTGTGTGTCCAAGGTGGTAAAGGGTGGCTCCTCA  
GGCAAGGGCACCACCCTCAGAGGCCGATCTGACGCTGACCTGGTTGTCTTCTCAGTCCTCTCACCACCTTTTCAG  
GATCAGTTAAATCGCCGGGGAGAGTTTCATCCAGGAAATTAGGAGACAGCTGGAAGCCTGTCAAAGAGAGAGAGCA  
CTTTCCGTGAAGTTTGAGGTCCAGGCTCCACGCTGGGGCAACCCCCGTGCGCTCAGCTTCGTACTGAGTTCGCTC  
CAGCTCGGGGAGGGGGTGGAGTTCGATGTGCTGCCCTGCTTTGATGCCCTGGGTCAGTTGACTGGCAGCTATAAA  
CCTAACCCCCAAATCTATGTCAAGCTCATCGAGGAGTGCACCGACCTGCAGAAAGAGGGCGAGTTCTCCACCTGC  
TTCACAGAACTACAGAGAGACTTCCTGAAGCAGCGCCCCACCAAGCTCAAGAGCCTCATCCGCCTAGTCAAGCAC  
TGGTACCAAAATTGTAAGAAGAAGCTTGGAAGCTGCCACCTCAGTATGCCCTGGAGCTCCTGACGGTCTATGCT  
TGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCCCAAGGATTTCCGACGGTCTTGGAATTAGTCATAAAC  
TACCAGCAACTCTGCATCTACTGGACAAAGTATTATGACTTTAAAAACCCATTATTGAAAAGTACCTGAGAAGG  
CAGCTCACGAAACCCAGGCCTGTGATCCTGGACCCGGCGGACCCTACAGGAAACTTGGGTGGTGGAGACCCAAAG  
GGTTGGAGGCAGCTGGCACAAGAGGCTGAGGCCTGGCTGAATTACCCATGCTTTAAGAATTGGGATGGGTCCCCA  
GTGAGCTCCTGGATTCTGCTGGCTGAAAGCAACAGTACAGACGATGAGACCGACGATCCCAGGACGTATCAGAAA  
TATGGTTACATTGGAACACATGAGTACCCTCATTCTCTCATAGACCCAGCACGCTCCAGGCAGCATCCACCCCA  
CAGGCAGAAGAGGACTGGACCTGCACCATCCTCTGAATGCCAGTGCATCTTGGGGGAAAGGGCTCCAGTGTTATC  
TGGACCAGTTCCTTCATTTTCAGGTGGGACTCTTGATCCAGAGAAGACAAAGCTCCTCAGTGAGCTGGTGTATAA  
TCCAAGACAGAACCCAAGTCTCCTGACTCCTGGCCTTCTATGCCCTCTATCCTATCATAGATAACATTCTCCACA  
GCCTCACTTCATTCCACCTATTCTCTGAAAATATTCCTGAGAGAGAACAGAGAGATTTAGATAAGAGAATGAAA  
TTCCAGCCTTGACTTTCTTCTGTGCACCTGATGGGAGGGTAATGTCTAATGTATTATCAATAACAATAAAAAATAA  
AGCAAATACCAAAAA



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**FIGURE 300**

MMDLRNTPAKSLDKFIEDYLLPDTCFRMQIDHAIDIICGFLKERCFRGSSYPVCVSKVVKGGSSGKGTTLRGRSD  
ADLVVFLSPLTTTFQDQLNRRGEFIOEIRROLEACQRERALS VKFEVQAPRWGNPRALS FVLSSLQLGEGVEFDVL  
PAFDALGQLTGSYKPNPQIYVKLIEECTDLQKEGEFSTCFTELQRDFLKQRPTKLKSLIRLVKHWYQNCKKKLGK  
LPPQYALELLTVYAWERGS MKTHFNTAQGFRTVLELVINYQQLCIYWTKYDFKNPIIEKYLRRQLTKPRPVILD  
PADPTGNLGGGDPKGWRQLAQEA EAWLNYPCKNWDGSPVSSWILLAESNSTDDETD DPTTYQKYGYIGTHEYPH  
FSHRPSTLQAASTPQA EEDWICTIL

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**FIGURE 301**

CCACGCGTCCGGGCGTAAGCCAGGCGTGTTAAAGCCGGTCCGGAACCTGCTCCGGAGGGCACGGGCTCCGTAGGCAC  
CAACTGCAAGGACCCCTCCCCCTGCGGGCGCTCCCATGGCACAGTTCGCGTTCGAGAGTGACCTGCACTCGCTGC  
TTCAGCTGGATGCACCCATCCCCAATGCACCCCTGCGCGCTGGCAGCGCAAAGCCAAGGAAGCCGAGGCCCGG  
CCCCCTCACCCATGCGGGCCGCCAACCGATCCACAGCGCCGGCAGGACTCCGGGCCGAACCTCTGGCAAATCCA  
GTTCCAAGGTTAGACCACTCCTAGCAAACCTGGCGGTGACCGCTATATCCCCATCGCAGTGCTGCCCAGATGG  
AGGTGGCCAGCTTCTCCTGAGCAAGGAGAACCAGTCTGAAAACAGCCAGACGCCACCAAGAAGGAACATCAGA  
AAGCCTGGGCTTTGAACCTGAACGGTTTTGATGTAGAGGAAGCCAAGATCCTTCGGCTCAGTGGAACCAACAAA  
ATGCGCCAGAGGGTTATCAGAACAGACTGAAAGTACTCTACAGCCAAAAGGCCACTCCTGGCTCCAGCCGGAAGA  
CCTGCCGTTACATTCTTCCCTGCCAGACCGTATCCTGGATGCGCCTGAAATCCGAAATGACTATTACCTGAACC  
TTGTGGATTGGAGTTCTGGGAATGTACTGGCCGTGGCACTGGACAACAGTGTGTACCTGTGGAGTGCAAGCTCTG  
GTGACATCCTGCAGCTTTTGCAAATGGAGCAGCCTGGGGAATATATATCCTCTGTGGCCTGGATCAAAGAGGGCA  
ACTACTTGGCTGTGGGCACCAGCAGTGCTGAGGTGCAGCTATGGGATGTGCAGCAGCAGAAACGGCTTCGAAATA  
TGACCAGTCACTCTGCCCAGTGGGCTCCCTAAGCTGGAACAGCTATATCCTGTCCAGTGGTTACGTTCTGGCC  
ACATCCACCACCATGATGTTTCGGGTAGCAGAACACCATGTGGCCACACTGAGTGGCCACAGCCAGGAAGTGTGTG  
GGCTGCGCTGGGCCCCAGATGGACGACATTTGGCCAGTGGTGGTAATGATAACTTGGTCAATGTGTGGCCTAGTG  
CTCCTGGAGAGGGTGGCTGGGTTCTCTGCAGACATTCACCCAGCATCAAGGGGCTGTCAAGGCCGTAGCATGGT  
GTCCCTGGCAGTCCAATGTCTGGCAACAGGAGGGGGCACCAGTGATCGACACATTTCGCATCTGGAATGTGTGCT  
CTGGGGCCTGTCTGAGTGCCGTGGATGCCATTCCCAGGTGTGCTCCATCCTCTGGTCTCCCCATTACAAGGAGC  
TCATCTCAGGCCATGGCTTTGCACAGAACCAGCTAGTTATTTGGAAGTACCCAACCATGGCCAAGGTGGCTGAAC  
TCAAAGGTCACACATCCCGGGTCTGAGTCTGACCATGAGCCCAGATGGGGCCACAGTGGCATCCGCAGCAGCAG  
ATGAGACCTGAGGCTATGGCGCTGTTTTGAGTTGGACCCTGCGCGGCGGGAGCGGGAGAAGGCCAGTGCAG  
CCAAAAGCAGCCTCATCCACCAAGGCATCCGCTGGAAGACCAACCCATCACCTCAGTTGTTTTTTATTTTTCTAAT  
AAAGTCATGTCTCCCTTCATGTTTTTTTTTTTAAAA

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**FIGURE 302**

MAQFAFESDLHSLLQLDAPIPNAPPARWQRKAKEAAGPAPSPMRAANRSHSAGRTPGRTPGKSSSKVQTTPSKPG  
GDRYIPHRSAAQMEVASFLLSKENQSENSQTPTKKEHQKAWALNLNGFDVEEAKILRLSGKQPQNAPEGYQNRLKV  
LYSQKATPGSSRKTCRYIPSLPDRIILDAPEIRNDYYLNLVDWSSGNVLAVALDNSVYLWSASSGDILQLLQMEQP  
GEYISSVAWIKEGNYLAVGTSSAEVQLWDVQQQKRLRNMTSHSARVGSLSWNSYILSSGSRSGHIIHHHDVRVAEH  
HVATLSGHSQEVCGLRWAPDGRHLASGGNDNLVNVWPSAPGEGGWVPLQTFTQHQGAVKAWAWCPWQSNVLATGG  
GTSDRHIRIWNVCSGACLSAVDAHSQVCSILWSPHYKELISGHGFAQNQLVIWKYPTMAKVAELKGHTSRVLSLT  
MSPDGATVASAAADETLRLWRCFELDPARRREREKASAAKSSLIHQGIR

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**FIGURE 303**

ATGTCTCTTGTCAGCTGTCTTTCAGAAGACCTGGTGGGGCAAGTCCGTGGGCATCATGTTGACCGAGCTGGAGAA  
AGCCTTGAACTCTATCATCGACGTCTACCACAAGTACTCCCTGATAAAGGGGAATTTCCATGCCGTCTACAGGGA  
TGACCTGAAGAAATTGCTAGAGACCGAGTGTCTCAGTATATCAGGAAAAAGGTGCAGACGTCTGGTTCAAAGA  
GTTGGATATCAACACTGATGGTGCAGTTAACTTCCAGGAGTTCCTCATTCTGGTGATAAAGATGGGCGTGGCAGC  
CCACAAAAAAGCCATGAAGAAAGCCACAAAGAGTAGCTGAGTTACTGGGCCCAGAGGCTGGGCCCTGGACATG  
TACCTGCAGAATAATAAAGTCATCAATACCTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 304**

MLTELEKALNSIIDVYHKYSLIKGNFHAVYRDDLKLETECPQYIRKKGADVWFKELDINTDGAVNFQEFLLV  
IKMGVAAHKKSHKE

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**FIGURE 305**

TGGGGCTGGCACTATGGTCATGGCGGAGGGGACGGCAGTGCTGAGGCGGAACAGGCCGGGCACCAAGGCGCAGGA  
TTTCTATAATTGGCCTGATGAATCCTTTGATGAAATGGACAGTACACTAGCTGTTCAACAGTATATTCAACAGAA  
CATAAGAGCAGATTGCTCCAATATTGACAAAATTCCTGAACCACCTGAAGGCCAAGATGAAGGTGTGTGGAAGTA  
TGAACATTTAAGGCAGTTCTGCCTTGAGCTAAATGGACTTGCTGTCAAACCTTCAGAGTGAATGCCATCCAGATAC  
TTGCACTCAAATGACAGCAACTGAACAATGGATTTTTCTTTGTGCAGCTCATAAACTCCAAAAGAGTGTCTCTGC  
TATAGACTATACTAGACACACACTTGATGGTGTGCTGCATGTCCTCTGAATAGCAATAAATATTTTCCCAGCAGGGT  
TAGCATAAAGGAATCATCTGTAGCGAACTAGGATCAGTATGCCGTAGGATTTACAGAATATTTTACATGCTTAT  
TTTCATCATCGGCAGATATTTGATGAATATGAAAACGAAACATTTTTGTGTGCATCGGTTTACTAAGTTTGTGATG  
AAATACAATTTGATGTCCAAGGATAACCTGATTGTACCAATTTTAGAAGAGGAAGTACAGAATTCAGTTTCTGGG  
GAAAGTGAAGCATGAAGGGAATCATAGGAAAAATGTACTGATCATATAATTAACATTATGTACTGTATATATCAT  
TTTAGACACATCAATCATGTATCCATATTATAGCTTCTTTGTTTAGTATAGGTTTTGTATGCTGGGTTTGCCTT  
TTAAAATGGGAAATACTTTTTAAGTTATTCTATAAGCTGTATATTCACCAGTGTGGCACTCATGGTTTTTAAATAA  
GATTAGTATTATCTGTTTATAATGCCTGTTAATAAAAAGAAATTTACAGTTTGGTAAAATTGCTGCTAAACAATCAT  
TGGATCACAATCCTCATCAGACAAACCCATCTGTAAAAAAATGAGGGAGAGCTTGAGGTTTACACAAGCCATT  
TACTAAAGAGGTAGAAATGTTTTCTATTGGTTTTACCTTGAGTTTAGATATCCTAAAAAATTCTGTAGTACGTAG  
TTTTGTCTTACCTGTTAACTTTCCCAATTGAGATAAAAAGTGTTTTAAATTCTGTTTATAGTTTTTGTATATGCA  
TATATAATTATGTGTATATCTAAATACAAATGCAAATGAAGCATTAGTAATACTTAAATAATTTTACTGTGCTAC  
ATAAAGTATAACATACTTGGAAGGATTTACCGTTCTGCAACAACGGACTGGTACATACAGGATGATCACAATGG  
TAAGGCACATAAATTATTTTCCCACTGGAAACCTGCCCTGTCCACCCCTTCTCATTTCCCTTAACCTTATCTTCA  
AACTACTTTTAGCTGAGAAGCTTTTACCAGACTGAGTTAGTGGTGGCTTATACCTATTTATATTTGTATTAATTG  
CTTACAGATTATACCTCATATTAGCAATTACATTACACTACAAGAAAATGTATTTGCATAGGCTCTTGCTTATCT  
TTGTTTTGCAAAATTGTTCTACTTAGAAAACAGTCCTTAAAAATAGTTTGACTCTTCCTGTTAGTAATATATTAAT  
CTTTCATTTAACCAGCTAGGCAGCATTAAATAGAATTGAAGAAATACCATAGTATTTATTTTACACCCCTCTCC  
CACGAAGTTTATGTTTGGATTACATGCACGTGTGAGATTATTTGCAATAATTCATAGGTTCCAAGGGTGTGATG  
AATAGTCATACATTTTTTTGGACTTTGTTATAATTCATTGTGGTAAGAATGATTGAAATGCAGATTTAACAATCT  
TATAATCTATTGAATGCCATTTTTGATAAAGCACTGGAGGTCTTATTGCCAACTGATTGTAATGAGGCAGTAAG  
GGTGAAAACATTGTACATGTTGTGAAGAAAGTATTTAAATCCAACCTTTGAACAGATTTAACAACATGAGGAAC  
TTTTTTATTTAGAAGGATAATTTTGAATGAAGATGAAAATGTATTCATCTTAATTGTTTTTTCAAATTTAAGGG  
AATAATTTATACCATCTTTTCCAGACAAGAATGTACAGCAAAAAAAGGGGAACAGTAGTATACTGAGAGTGTGTG  
TATGTATAATGTATGCCTTTTCCAAGCTTGCCAGTCTTTTTGGCTTTGAACACTGCCCATCAGCTACAGTCATTAC  
TGTTCCCAACCCACAACATATCTTTAAGAAGTCTTAGTTCACAGTGAAAGGAATGATGATTTTGAAATTATGGA  
TTTATATTAATGGCACTATAAACCAATGGTAATGGTAATTTTTAACTTGCTAAATATTGAGAACTAACTACT  
AAGTTAATAAATTATATATAGCAGTGTAGCTGTTCTCTCTAGATGGTGTCTCACAATGGATTTCTGTTGCTTGAC  
TATTTTCTTAGTGAATATTTATACTAAGGTAGTGACTGAGATTTGGTGTCTGGCTGAGTATTTTGAAACACATT  
TTGAATAATATGGCTTAGTGTTAACGGGGACTTAAATATGATTTTTTTTTCTTACTCATTTACCTTCCCTGTAC  
TGTATGTTTGAATTGATCATAAAACATCTCCAAAAGAAAATAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 306**

MVMAEGTAVLRRNRPGTKAQDFYNWPDESFDMDSTLAVQQYIQQNIRADCSNIDKILEPPEGQDEGVWKYEHLR  
QFCLELNGLAVKLQSECHPDCTQMTATEQWIFLCAAHKTPKECPAIDYTRHTLDGAACPLNSNKYFPSRVSIKE  
SSVAKLGSVCRRIRIFHMLIFIIGRYLMNMKTKHFCVIGLLSL

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**FIGURE 307**

ACACCATCCTCTTAGTTGCTCAGACTGAAAAGCTAGCAGCCATCCTGGATTTCTCTCACACTGCCTATTCAACGT  
GTGAATGCATGAGTGGAAGCTGAGTTCGCACTCGTGACTGGCCGGGGTCGACTCTGACATTCACTCCCACCTTTG  
GCGCGCTGATTTGCCTCTGAGCGGATGAAGGTTGAGCCATGGCGGGCGGGCCGGGGAGGCGGGCTTGGAGCGAG  
GGGGCGGGGCGAGGCGCCACAAAAACGCGCTCGCGCCGGCGCCGAACCGCAACTCCCGGCGACCCCGCGCTCCCG  
GGTGGCAAGATGGTGGCGCGCAGGAGGAAGTGCAGCGCGCGGGACCCGGAGACCGTATCCCGAGCCCACTGCGTAC  
GCAGCTATTCCAATCAAGTTCTCTGAAAAGCAACAGGCTTCTCACTACCTCTATGTGAGAGCACACGGCGTTCCGA  
CAAGGCACCAAGTCCACCTGGCCTCAGAAGAGGACTCTTTTTGTCTCAATGTGCCCCATACTGCACAGAGGAG  
AGCCTGTCCCGCCTCCTGTCCACCTGTGGCCTCGTCCAGTCTGTAGAGTTGCAGGAGAAGCCGGACCTGGCTGAG  
AGCCCAAAGGAGTCAAGGTGCAAGTTTTTTCATCCCAAGCCAGTTCCGGGTTTCCAGGTAGCCTATGTGGTGTTT  
CAGAAGCCAAGTGGGGTGTGACGGCCTTGGCCCTGAAGGGCCCCCTGCTGGTGTCCACAGAGAGCCACCCTGTG  
AAGAGTGGCATTACAAAGTGGATCAGTGACTACGCAGACTCTGTGCCCGACCCTGAGGCCCTGAGGGTGGAAAGT  
GACACGTTTCATGGAGGCATATGACCAGAAGATCGTGAGGAAGAAGCTAAGGCCAAGGGGGAGGAGGGGGTCCCT  
GACGAGGAGGGCTGGGTGAAGGTGACCCGCCGGGGCCGGCGCCTGTGCTCCCCGGACTGAGGCAGCCAGCTTGC  
GGGTGCTGGAGAGGGAGAGACGGAAGCGCAGCGAAAAGAGCTGCTCAACTTCTACGCCTGGCAGCATCGAGAGAG  
CAAGATGGAGCATCTAGCGCAGCTCGCAAGAAGTTCGAGGAGGACAAGCAGAGGATCGAGCTGCTGCGGGCCAG  
CGCAAATTCCGACCGTACTGAGCTGTGAGAGCCGCAGTGAATGGCTGGAGGTGCAGGGCCAGGAGGAGGCGAGGC  
AGGGCCTGCAGCGGTCTCTGAGAGGCCGAGCTCTGGCCAACGGGGCCCCAGGTTGAAGGCCACCGCGTCCAACAGC  
CCCATCAGAGTCCACACAGGCCAGGAGGGAAGGACCAGGCCACCCCTCGGGTCTTGTGCTTCAGCAGTCTTGGG  
ACCCAGGCGTGCCGAGAGGAGGACTTGTCTTCTGCTTCTTGCCTCCACACCCTCCTCTCCAGGACCCTGGATG  
AATCCGTTCTGTGCTTCTTTTTCCCTCAATGCAAAAGCCCTTGTGGCAACGAAAAGCCTCAAAAGCAGTGAGA  
ATACAAGAACCTTTTTATTTTCCATCCAGTTGGGCAGCAGGGAAAGGCTAGGTGGGCCAGCCTGCCCTTCTTCC  
TCCAGCTGGCTGGATATTTATTATTAGCCAGGAGAAAAGCAGCCCTGGAACCCAGACTCTGTCTCCCTCTTGAGGT  
CACAGATGTTGAAGTTGGAATCTCGCTCCTTCCCTGACTACCATCCTAGGCTGGGCTCAAGACTAGTGAGGCCT  
GTCCCCACCATCCCTGGCCTTGTGTGGGGCTCAGGAACCTCAGAGTCCAGTGTGAGTCTGGGAGCACTAGGTC  
TTCATAGTTCCAGGCCAGAGCTACAGCTGGGCTGGGAGCATGTGTGTGCACTGTAAGAAGGAGCTGATGATACT  
GGCCACGTGCTGGGGTTCGCTCATGTGGACACAGTGATTGCTTGGGACTTCCACAACTGGAAGTCTCTTTGAG  
GGTGGATTTTCATCGTGTCTATCATGAACGACAGGGACTCCTTCTCAGAGTAATTCTGTCTTGAATCAAAATATCC  
GTGGACTGCTTTGATCAACAGGACATGGCCTGCAGCTTCTGATGGAATGCGCACACAGCTCCCTGCTGATGAAG  
TCAATGCTGTTCTCTGCCCAGGCGAGCCTCTGGTCTCTGTTTCAAGACACCTGTGGGCACCTTCGTGGTTCTT  
CTTTCAGGAGAACTCCCGCACTCCTCACTCAAGTGCTATTGCTCTTCAGTAACCTCTGCAGCAGCT



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**FIGURE 308**

MKVEPWRA GPGRRAWSEGAGQAPQKRARAGAEPQLPATPALPGGKMVARRRKARGTTRRPYPEPTAYAAIPIKFS  
EKQQASHYLYVRAHGVRQGTKSTWPQKRTLFLVNVPPYCTEESLSRLLSTCGLVQSVELQEKPDLAESPKESSK  
FFHPKVPVPGFQVAYVVFQKPSGVSAALALKGPLLVSTESHVPKSGIHKWISDYADSVDPPEALRVEVDTFMEAYD  
QKIAEEEEAKAKGEEGVPDEEGWVKVTRRGRRRLCSPGLRQPACGCWRGRDGSAAKRAAQLRLAASREQDGASSAA  
RKKFEEDKQRIELLRAQRKFRPY

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**FIGURE 309A**

CAGCTGCCAGCCGAGGAGGCGCGGCGGAGAGGGGACTGCGGTTCAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC  
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCGCGCGCTAGCCCGCCCTGGTCCC  
CGGCTCGCTCGCTGGCTGGCGCGGCCCCGCCCCGCTCTGCGTGGCCCCGCGCGGTGGAGGCGCGCGAGGGGG  
ACGCGGCGGGGATGAGCGGATTGCGGGTGAACTCGCCGCCCGGGGGCCCCGGAAGCCGTGAGCCGCTGCTTTT  
CTCCGAGTCGCCGCCCTGCCCTTGGATTGAGATCATGTCATCCACATCGTGGCGCTGGGGAACGAGGGGGACA  
CATTCCACCAGGACAACCGGCCGTCGGGGCTTATCCGCACTTACCTGGGGAGAAGCCCTCTGGTCTCCGGGGACG  
AGAGCAGCTTGTGCTGAACGCGGCCAGCACGGTCGCGCGTCCGGTGTTCACCGAGTATCAGGCCAGTGCCTTTG  
GGAATGTCAAGCTGGTGGTCCAGACTGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC  
TAATTGGGGGCGCTGACATCATTGTGATCAAATACAACGTTAATGACAAGTTTTATTCCATGAAGTAAAGGATA  
ATTATATTCCAGTGATAAAAAGAGCATTAAATTCAGTTCAGTAATTATTGCTGCTGTTGGTACCAGACAAAATG  
AAGAGTTACCTTGTACATGCCACTATGTACCTCAGACAGAGGGAGCTGTGTTAGTACAACCTGAAGGGATCCAAC  
TTGCAAAAGAACTAGGAGCAACCTATCTTGAACCTCACAGCCTTGATGACTTCTACATAGGAAAGTATTTTGAG  
GAGTGTGGAGTATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAGAAAATGAAGAAAAGAAAATGAGCA  
ACTCCTTTTCATGGAATTAGACCACCTCAACTTGAACAACAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC  
ATTATACTCTGACTTAAATAACTTGCTGTTCTGCTGCCAGTGTGTGGACGTGGTATTTTATAACCCCGATTAA  
AGAAAGTTGTAGAGGCCCAAGATCGTTCTCTGCGCTGTAAGCCATGTTTTTCATGCTGCTTTTCAATGTGAAGA  
GTCCCACTGACATTCAGGATTCCAGTATCATCCGAACCTACCCAGGATCTTTTTGCTATAAACAGAGATACTGCAT  
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTTCTGTTCTT  
GTTTATCAGACATCCTTCGCTTCATTTATTTCAGGTGCTTTTCAGTGGGAAGAATTGGAAGAAGATATCAGGAAGA  
AGTTGAAAGATTCTGGGGATGTTTCAAATGTAATCGAGAAAGTTAAATGCATTTTAAAAACACCAGGAAAGATTA  
ATTGCCTAAGGAATTGCAAAACCTATCAAGCCAGAAAACCTTTGTGGTTTTATAACACTTCCCTCAAGTTTTTCC  
TTAATAAGCCGATGCTTGCCGATGTTGTCTTCGAAATTCAAGGTACGACAGTGCCAGCCACAGGGCCATCCTGG  
TGGCCCGTTGTGAAGTGATGGCAGCCATGTTTAAATGGTAATTACATGGAAGCAAAGAGTGTCTGATTCCCGTTT  
ATGGTGTTTCCAAAGAGACTTTCTTGTCATTTTTGAATAACCTGTACACAGACTCCTGCTGCCAGCTGGCATAT  
TCCAGGCCATGTGTCTCCTGATCTGTGCCGAGATGTACCAAGTGTCAGACTGCAGCACATCTGTGAGCTGTTCA  
TCATTACCCAGCTGCAGAGCATGCCAAGCAGGGAACCTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA  
AGGCCAAGTTTACCACCTCTGATTGCCTTTCAACCTGGCTACTTCATTTCAATTGCTACTAACTACCTCATCTTCA  
GTCAAAAGCCTGAATTTTCAGGATCTTTTCAGTGAAGAACGCAGTTTTGTTGAAAAGCACAGATGGCCGTCGAATA  
TGTAATTGAAGCAGCTTGCGGAATACAGGAAGTATATTCACTCCCGGAAATGTCGTTGCTTAGTAATGTAACTG  
GAGCTTTTATACACTACATTTCTTTTTTATTATTATGAAGAATGGGATACCTCCAGGTTCCAGTAAATTTCTTCT  
GACCGAAACCAATGTGGGTGTTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAC  
TACCCTGTGGTCTTAAAAGGGAACAAAATATACCATAGGCTAAAACTAAGGCTTTCACTCTAGAATGCAAAGCT  
GTTTTGCAGCTGTTTTCCCTTAAAGATGTCCTGTTGCTTTAGTGATATTTAGACCCCTCTCAGTTAAGAAATGCT  
TAGATTAATAAAAAAAAAAATTACGTAGGATTAATACAGAAATTTAATCATGTCTGATTAATTGCTCTATTAAAAATA  
AGGGGCATTTAAAGACCCAGCATAACCATTGTATAATGAGAAATCTAGGGGAAAACCAATCAGTCCAACATGAG  
ATTTTAGGAATAGAAATTTGCCGGCCATTTGGAAAGTGAAATGCCACTTAGTCTCAATTGATGACAGTGTGTTGA  
ATCATCATAAAAAAATACCTGCTTTTCACTGGAACAACCAATTGAGCCACTTTATCTCCTTTTGGCAATCTGA  
GTAGGCGGGGAACCTAGGCAGGGCTGGCTTTCTTAGCGTGTAACCTTGTTGAGCAGCACAGGGCCACACTTAGAA  
GGACCCACACTTGGTTCAAGGCTCTGCTATAGCGGAAATTTCTTAATAATGTTTGAAGAAGGGCCCCATGATTTT  
ATTTGTGCTGAGCCCTCAAAATTATGTCTGTTTCGTGGTGGGAAATATCCTATGTTTTCTTGCTCAAACACCTT  
TCTCTGTAAAGCAGAAAAAGGCACTGATATAAAGGGAAGAGAAGGAGGCTCACCGAGGGGAAGAGAACATAGTG  
AAGATCCCGCCTTTGGGGAGGTCTGGACCACCCAGGGCCTCCACTGCCACCTTGGCTGGCAAGGGAGAAATGTG  
TTGTGTTGTCTTAGCTTTAAACAGTCACAGTTCCTTGCTCTATCATAGATGAACAAATACTTTCTTGATCATTCT  
GTAAGACCAGGAGGTGGTAAGAGTGACTAACCAGCCTAACTTTAATACACATGTATAAAGATGTTTCACAGAGAA  
AGATGCTCTGTAGAGAATTTGCTACCGAAGTTGGCTCAAGAATTTGTTTTTAGTGTTATTTACCAAGATTAGGAC  
GTCAGTGGCTTAAATCTTTGAATCTTTTCAAGGACTGCAAGATTATTTGATAAAGAGTAGCATGAATCTTGTTG  
CTCTAATATTACACAGTAAGTTCAAAGAAAGGATGTAAGTCAAAGACTTGTTACATAGAGGGAAAATGGACTGGG  
ATAGAGGACAGACTGATAGTTTCTTTCTTTTCATATCACATGTATAGAGAAATAATTATATCAGAACTCACAAAC

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**FIGURE 309B**

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT  
TCTTTTAATTTCCAGTGACTTTAGAAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA  
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAACATTAGGTCAGGC  
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA  
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT  
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG  
ATCGCACCCTGCACTCCAGCCTGGGTGACAAGAGCGAACTCCATCTC

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**FIGURE 310**

MSIHIVALGNEGDTFHQDNRP SGLIRTYLGRSPLVSGDESSLLLNAASTVARPVFTEYQASAFGNVKLVVHDCPV  
WDIFDSDWYTSRNLIGGADIIVIKYNVNDKFSFHEVKDNYIPVIKRALNSVPVIIAAVGTRQNEELPCTCPLCTS  
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE  
QPEKMPVLKAEASHYN SLDLNNLLFCCQCVDVVFYNPD LKKVVEAHKIVLCAVSHVFMLLFNVKSPTDIQDSSIIR  
TTQDLFAINRDTAFPGASHESGNPPLRVIVKDALFCSCSLDILRFIYSGAFQWEELEEDIRKKLKDSDVSNVI  
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPMLADVFEIQGTTVPAHRAILVARCEVMAAMFN  
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLQHICELFIITQLQSMPSRE  
LASMNLDIVDLLKKAKFHSDCLSTWLLHFIATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY  
IHSRKCRCLVM

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**FIGURE 311**

GGCACGAGGGTAGCTTTCCAACATAAAGTGGAGGTTTCAACACAGGAGACTTTAAGCAAGTTCCAGTGTGTCTAT  
ATTTGGTCTGGCTGATCGGCTGGACTCTGGCCTTCCCCGCTCACGTTAGCAGACAGCTCTGCCCTAGTGGGCGCT  
TAGCCTGCGACGGCAGCCCCGAGAGGATGTCTAACAAGCTTCTTTCTCCCCACCCCATTAGTTGTTCTCAGGTC  
TGAATTCAAATGGCCTCATCTCCTGCTGTCTTCGAGCGTCCCGGCTGTACCAATGGAGCCTGAAGAGTTCCGGC  
GCAGTTCCTGGGGTCTCCACAGCTGAGGCAGGTTGGTCAGATCATTAGGGTTCCTGCTCGGATGGCGGCGACGCT  
GATCCTGGAGCCTGCGGGCCGCTGCTGCTGGGACGAACCGGTGCGAATCGCCGTGCGGGCCTAGCCCCGGAGCA  
GCCGGTCACGCTGCGCGCGTCCCTGCGCGACGAGAAGGGCGCGCTTTTCCAGGCCCACGCGCGCTACCGCGCCGA  
CACTCTTGGCGAGCTGGACCTGGAGCGCGCGCCCGCTGGGCGGCAGCTTCGCGGGGCTTGAGCCCATGGGGCT  
GCTCTGGGCCTTGGAGCCCCGAGAAACCTTTGGTGCGGCTGGTGAAGCGCGACGTGCGAACGCCCTTGGCCGTGGA  
GCTGGAGGTGCTGGATGGCCACGACCCCGACCCCGGGCGGCTGCTGTGCCAGACGCGGCACGAGCGCTACTTCCT  
CCCGCCCGGGGTGCGGCGCGAGCCGGTGC GCGTGGGCCGGGTGCGAGGCACGCTCTTCCTGCCGCCAGAACCTGG  
GCCCTTTCCTGGGATTGTGGACATGTTCCGAACTGGAGGTGGCCTGCTGGAGTATCGGGCTAGTCTGCTGGCTGG  
GAAGGGTTTTGCTGTGATGGCTCTGGCTTATTATAACTATGAAGACCTCCCCAAGACCATGGAGACGCTCCATCT  
GGAGTACTTTGAAGAAGCCATGAATACTTGGCTCAGTCATCCCGAGGTAAAAGGTCCAGGAGTTGGGCTGCTTGG  
AATTTCAAAGGGGGTGAGCTCTGCCTTTCCATGGCCTCTTTCCTGAAGGGCATCACGGCTGCTGTGTCATCAA  
CGGCTCTGTGGCCAATGTTGGGGGAACCTTACGCTACAAGGGCGAGACCCTGCCCCCTGTGGGCGTCAACAGAAA  
TCGCATCAAGGTGACCAAAGATGGCTATGCAGACATTGTGGATGTCCTGAACAGCCCTTTGGAAGGACCTGACCA  
GAAGAGCTTCATTCTGTGGAAAGGGCAGAGAGCACCTTCCTGTTCTGGTAGGTCAGGATGACCACAACCTGGAA  
GAGTGAGTTCTATGCTAATGAGGCCTGTAAACGCTTGCAAGGCCCATGGGAGGAGAAAGCCCCAGATCATCTGTTA  
CCCAGAGACAGGGCACTATATTGAGCCTCCTTACTTCCCCCTGTGTGCGGGCTTCCCTGCATGCCTTGGTGGGCAG  
TCCTATTATCTGGGGAGGGGAGCCCAGGGCTCATGTGATGGCTCAGGTGGATGCTTGGAACAACCTCCAGACTTT  
CTTCCACAAACACTTGGGTGGCCACGAGGGGACAATCCCATCAAAAGTGTAAATTTTATTTGATCATGTGGCCTC  
TCTGTTGCTAATCTCTCCTGGAAACATCTGCCACATTTAGTGTGTGTATGTGTATTATTCTTTTGTTTTAAATA  
ACTAAAGTTTTTTCCCCTCATTATTAAATGAATTTACCAGTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 312**

MSNKLLSPHPHSVVLRSSEFKMASSPAVLRASRLYQWSLKSSAQFLGSPQLRQVGQIIRVPMARMAATLIILEPAGRC  
CWDEPVRIAVRGLAPEQPVTLRASLRDEKGALEFQAHARYRADTLGELDLERAPALGGSFAGLEPMGLLWALEPEK  
PLVRLVKRDVRTPLAVELEVLGDHDPDPGRLLCQTRHERYFLPPGVRREPVRVGRVGRGTFLFPPEPGFFPGIVDM  
FGTGGGLLEYRASLLAGKGFVAVMALAYNYEDLPKTMETLHLEYFEEAMNYLLSHPEVKGPVGLLGISKGGELC  
LSMASFLKGITAADVINGSVANVGGLTRYKGETLPPVGVNRRRIKVTGDYADIVDLNSPLEGPDQKSFIPIVER  
AESTFLFLVGQDDHNWKSEFYANEACKRLQAHGRRKPQIICYPETGHYIEPPYFPLCRASLHALVGSPFIWGGEP  
RAHVMAQVDAWKQLQTFFHKHLGGHEGTIPSKV

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**FIGURE 313A**

ATGAAGGTGATAAGCTTATTCATTTTGGTGGGATTTATAGGAGAGTTCCAAAGTTTTTCAAGTGCCTCCTCTCCA  
GTCAACTGCCAGTGGGACTTCTATGCCCCCTTGGTCAGAATGCAATGGCTGTACCAAGACTCAGACTCGCAGGCGG  
TCAGTTGCTGTGTATGGGCAGTATGGAGGCCAGCCTTGTGTTGGAAATGCTTTTGAAACACAGTCTGTGAACCT  
ACAAGAGGATGTCCAACAGAGGAGGGATGTGGAGAGCGTTTCAGGTGCTTTTCAGGTGAGTGCATCAGCAAATCA  
TTGGTTTGCAATGGGGATTCTGACTGTGATGAAGACAGTGTGATGAAGACAGATGTGAGGACTCAGAAAAGGAGA  
CCTTCCTGTGATATCGATAAACCTCCTCCTAACATAGAACTTACTGGAAATGGTTACAATGAACTCACTGGCCAG  
TTTAGGAACAGAGTCATCAATACCAAAAGTTTTGGTGGTCAATGTAGAAAGGTGTTTAGTGGGGATGGAAAAGAT  
TTCTACAGGCTGAGTGGAAATGTCTGTCTATACATTCCAGGTGAAAATAAATAATGATTTTAATTATGAATTT  
TACAATAGTACTTGGTCTTATGTAAACATACGTCGACAGAACACACATCATCTAGTCGGAAGCGCTCCTTTTTT  
AGATCTTCATCATCTTCTTCACGCAGTTATACTTCACATACCAATGAAATCCATAAAGGAAAGAGTTACCAACTG  
CTGGTTGTTGAGAACACTGTTGAAGTGGCTCAGTTCATTAATAACAATCCAGAATTTTTTACAACCTGTGAGCCA  
TTCTGGAAGGAGCTTTCCACCTCCCTCTCTGTATGACTACAGTGCCTACCGAAGATTAATCGACCAGTACGGG  
ACACATTATCTGCAATCTGGGTGCTTAGGAGGAGAATACAGAGTTCTATTTTATGTGGACTCAGAAAAATTA  
CAAAATGATTTTAATTCAGTCGAAGAAAAGAAATGTAAATCCTCAGGTTGGCATTTTGTGCTTAAATTTTCAAGT  
CATGGATGCAAGGAACTGGAACCGCTTTAAAGCTGCTTCAGGAACCCAGAACAATGTATTGCGAGGAGAACCG  
TTCATCAGAGGGGGAGGTGCAGGCTTCATATCTGGCCTTAGTTACCTAGAGCTGGACAATCCTGCTGGAACAAA  
AGGCGATATTCTGCCTGGGCAGAATCTGTGACTAATCTTCCTCAAGTCATAAAACAAAAGCTGACACCTTTATAT  
GAGCTGGTAAAGGAAGTACCTTGTGCTCTGTGAAAAAACTATACCTGAAATGGGCTCTTGAAGAGTATCTGGAT  
GAATTTGACCCCTGTCTATTGCCGGCCTTGTCAAAATGGTGGTTTGGCTACTGTTGAGGGGACCCATTGTCTGTGC  
CATTGCAAACCGTACACATTTGGTGCGGCGTGTGAGCAAGGAGTCTCGTAGGGAATCAAGCAGGAGGGGTTGAT  
GGAGGTTGGAGTTGCTGGTCTCTTGGAGCCCCCTGTGTCCAAGGGAAGAAAACAAGAAGCCGTGAATGCAATAAC  
CCACCTCCCAGTGGGGGTGGGAGATCCTGCGTTGGAGAAACGACAGAAAGCACACAATGCGAAGATGAGGAGCTG  
GAGCACTTGAGGTTGCTTGAACCACATTGCTTTCTCTTGTCTTTGGTTCCAACAGAATTCTGTCCATCACCTCCT  
GCCTTGAAAGATGGATTTGTTCAAGATGAAGGTCCAATGTTTCTGTGGGGAAAATGTAGTGTACACTTGCAAT  
GAAGGATACTCTCTTATTGGAAACCCAGTGGCCAGATGTGGAGAAGATTACGGTGGCTTGTGGGGAAATGCAT  
TGTCAGAAAATTGCCTGTGTTCTACCTGTACTGATGGATGGCATAAGAGTCAACCCCAAAACCTTTCTACACA  
GTTGGTGTGAGAAGGTGACTGTTTCTGTTTCAAGGTGGCATGTCTTAGAAGGTCTTCAGCATTTCTCTGTGGCTCC  
AGCCTTAAGTGGAGTCTGAGATGAAGAATGCCCCGTGTGTACAAAAAGAAAATCCGTTAACACAGGCAGTGCCT  
AAATGTCAGCGCTGGGAGAACTGCAGAATTCAAGATGTGTTTGTAAAAATGCCCTACGAATGTGGACCTTCTCTG  
GATGTATGTGCTCAAGATGAGAGAAGCAAAAGGATACTGCCTCTGACAGTTTGCAAGATGCATGTTCTCCACTGT  
CAGGGTAGAAATTACACCTTACTGGTAGGGACAGCTGTACTCTGCCTGCCTCAGCTGAGAAAGCTTGTGGTGCC  
TGCCCACTGTGGGGAAAATGTGATGCTGAGAGCAGCAATGTGTCTGCCGAGAAGCATCGGAGTGCGAGGAAGAA  
GGGTTTAGCATTGTGTGGAAGTGAACGGCAAGGAGCAGACGATGTCTGAGTGTGAGGCGGGCGCTCTGAGATGC  
AGAGGGCAGAGCATCTCTGTACACAGCATAAGGCCTTGTGCTGCGGAAACCCAGTAGGCTCCTGGAGGCCATGGT  
CAGCTTGCTTGGAAATCCAGCAGGCAGCTGGGGCTGAGTGAAAAATCTGCACAACCTGGGCACTGGACAGCTTTTC  
CTTCTTCTCCAGTGTCTACCTTCTCCTCAACTCCCAGCCATCTGTATAAACACAATCCTTTGTTCTCCCAAATC  
TGAATCGAATTACTCTTTTGCCTCCTTTTTAATGTGAGTAAGGATATGAGCCTTTGCACAGGCTGGCTGCGTGT  
CTTGAAATAGGTGTTACCTTCTCTGGGCCTTGGTTTTTTTAAATCTGTAAAAATTAGAGGATTGCACTAGAGAAAC  
TTGAATGCTCCATTGAGGCCTATCATTTTATTAAGTATGATTGACACAGCCCATGGGCCAGAACACACTCTACAA  
AATGACTAGGATAACAGAAAGAACGTGATCTCCTGATTAGAGAGGGTGGTTTTCTCAATGGAACCAAAATATAAA  
GAGGACTTGAAACAAAATGACAGATACAACTATTTCTATCCTGAGTAGTAATCTCACACTTCATCCTATAGAGT  
CAACCACCACAGATAGGAATTCCTTATTCTTTTTTTAATTTTTTTAAGACAGAGTCTCACTTTGTTGCCAGGCT  
GGAGCGCAGTGGGGTGATCTCATCTCCCTGCAACCTCCGCTCCTGGGTTGAAGCGATTCTTGTGCTCAGCTTC  
CCAAGCAGCTGGGATTACAGGTGCCCCGCCACCACGCCAGCTAATTTTTTGCATTTTGTAGTAGAGATGGGTTTCAC  
CATGTTGGCCATGCTCGTCTCCAACCTCCTGACCTCAGGTAATCCGTCTGCCTTGGCCTCCCAATGCTGGGATTA  
CAGACATGAACCACCACGCCTGGCTGGAATACTTACTTGTGCGGAGATTGAACCACTAAAATGTTAGAGCAGA  
ATTCAATTATGCTGTGGTCACAGGGGTGTCTTGTCTGAGAACAAATACAATTCAGTCTTCTCTTTGGGGTTTTAGT  
ATGTGTCAAACATAGGACTGGAAGTTTGGCCCTGTTCTTTTTTCTTTTGAAGAACATCAGTTCATGCCTGAGGC

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**FIGURE 313B**

ATGAGTGACTGTGCATTTGAGATAGTTTTCCCTATTCTGTGGATACAGTCCCAGAGTTTTTCAGGGAGTACACAGG  
TAGATTAGTTTGAAGCATTGACCTTTTATTTATTCCTTATTTCTCTTTCATCAAAACAAAACAGCAGCTGTGGGA  
GGAGAAATGAGAGGGCTTAAATGAAATTTAAAATAAGCTATATTATACAAATACTATCTCTGTATTGTTCTGACC  
CTGGTAAATATATTTCAAACCTTCAGATGACAAGGATTAGAACAACCTCATTAAAGATGCTATTCTTC



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**FIGURE 314**

MKVISLFIILVGFIGEFQSFSSASSPVNCQWDFYAPWSECNGCTKTQTRRRSVAVYGQYGGQPCVGNAFETQSCEP  
TRGCPTEEGCGERFRFCFSGQCISKSLVCNGDSDCDEDSADEDRCEDSERRPSCDIDKPPPNIELTGNGYNELTGQ  
FRNRVINTKSFGGQCRKVFSGDGKDFYRLSGNVLSYTFQVKINNDFNIEFYNSTWSYVKHTSTEHTSSSRKRSFF  
RSSSSSSRSYTSHTNEIHKGKSYQLLVVENTVEVAQFINNNPEFLQLAEPFWKELSHLPSLYDYSAYRRLIDQYG  
THYLQSGSLGGEYRVLFYVDSEKLKQNDFNSVEEKKCKSSGWHFVVKFSSHGCKELENALKAASGTQNNVLRGEP  
FIRGGGAGFISGLSYLELDNPAGNKRRYSAWAESVTNLPQVIKQKLTPLYELVKEVPCASVKKLYLKWALEEYLD  
EFDPCCHCRPCQNGGLATVEGTHCLCHCKPYTFGAACEQGVLVGNQAGGVDGGWSCWSSWSPCVQGKTRSRECNN  
PPPSGGGRSCVGETTESTQCEDEELEHLRLLEPHCFPLSLVPTEFCPSPPALKDGFVQDEGPMFPVGKNVYTCN  
EGYSLIGNPVARCEDLRWLVGEMHCQKIACVLPVMDGIQSHQKPFYTVGEKVTVSCSGGMSLEGPSAFLCGS  
SLKWSPKMNARCVQKENPLTQAVPKQWEKLQNSRCVKMPYECGPSLDVCAQDERSKRILPLTVCKMHVLHC  
QGRNYTLTG RD SCTL PASAEKACGACPLWGKCD AESSKVC REASECEEEGFSICVEVNGKEQTMSECEAGALRC  
RGQSISVTSIRPCAAETQ

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**FIGURE 315**

CCCGCCGCCCATGGAGCGCGCCGCGCCGCTCGCGCCGGGTCCCGCTTCCGCTGCTGCTGCTCGGCGGCCCTTGCGCT  
GCTGGCGGCCGGAGTGGACGCGGATGTCTCTGGAGGCCCTGCTGTGCGGACGGACACCGGATGGCCACTCATCA  
GAAGGACTGCTCGCTGCCATATGCTACGGAATCCAAAGAATGCAGGATGGTGCAGGAGCAGTGTGCCACAGCCA  
GCTGGAGGAGCTGCACTGTGCCACGGGCATCAGCCTGGCCAACGAGCAGGACCGCTGTGCCACGCCCCACGGTGA  
CAACGCCAGCCTGGAGGCCACATTTGTGAAGAGGTGCTGCCATTGCTGTCTGCTGGGGAGGGCGGCCACGGCCCA  
GGGCCAGAGCTGCGAGTACAGCCTCATGGTTGGCTACCAGTGTGGACAGGTCTTCCGGGCATGCTGTGTCAAGAG  
CCAGGAGACCGGAGATTTGGATGTGCGGGGCCCTCCAAGAAACGGATAAGATCATTGAGGTTGAGGAGGAACAAGA  
GGACCCATATCTGAATGACCGCTGCCGAGGAGGCGGGCCCTGCAAGCAGCAGTGCCGAGACACGGGTGACGAGGT  
GGTCTGCTCCTGCTTCGTGGGCTACCAGCTGCTGTCTGATGGTGTCTCCTGTGAAGATGTCAATGAATGCATCA  
GGGCAGCCACAGCTGCCGGCTTGGAGAATCCTGCATCAACACAGTGGGCTCTTCCGCTGCCAGCGGGACAGCAG  
CTGCGGGACTGGCTATGAGCTCAGAGGACAATAGCTGCAAAGATATTGACGAGTGTGAGAGTGGTATTCATAA  
CTGCCTCCCCGATTTTATCTGTGAGAATACTCTGGGATCCTTCCGCTGCCGACCCAAGCTACAGTGCAAAGAGTGG  
CTTTATACAAGATGCTCTAGGCAACTGTATTGATATCAATGAGTGTGTTGAGTATCAGTGCCCCGTGCCCTATTGG  
GCATACATGCATCAACACAGAGGGCTCCTACACGTGCCAGAAGACGTGCCCAACTGTGGCCGTGGCTACCATCT  
CAACGAGGAGGGAACGCGCTGTGTTGATGTGGACGAGTGCAGCGCCACCTGCTGAGCCCTGTGGGAAGGGACATCG  
CTGCGTGAACCTCTCCCGGAGTTTCCGCTGCGAATGCAAGACGGGTTACTATTTTGACGGCATCAGCAGGATGTG  
TGTCGATGTCAACGAGTGCCAGCGCTACCCCGGGCGCCTGTGTGGCCACAAGTGCAGAGAACACGCTGGGCTCCTA  
CCTCTGCAGCTGTTCCGTGGGCTTCCGGCTCTCTGTGGATGGCAGGTGCTGTGAAGACATCAATGAGTGCAGCAG  
CAGCCCCTGTAGCCAGGAGTGTGCCAACGTCTACGGCTCCTACCAGTGTTACTGCCGGCGAGGCTACCAGCTCAG  
CGATGTGGATGGAGTCACCTGTGAAGACATCGACGAGTGCAGCCCTGCCACCGGGGGCCACATCTGCTCCTACCG  
CTGCATCAACATCCCTGGAAGCTTCCAGTGCAGCTGCCCCCTCGTCTGGCTACAGGCTGGCCCCCAATGGCCGCAA  
CTGCCAAGACATTGATGAGTGTGTGACTGGCATCCACAACCTGCTCCATCAACGAGACCTGCTTCAACATCCAGGG  
CGCGTTCCGCTGCCTGGCCTTCGAGTGCCTGAGAACTACCGCCGCTCCGCAGCCACGCTCCAGCAGGAGAAGAC  
AGACACGGTCCGCTGCATCAAGTCTGCGCCCCAACGATGTACATGCGTGTTCGACCCCGTGCACACCATCTC  
CCACACCGTCATCTCGCTGCCTACCTTCCGCGAGTTACCCCGCCCTGAAGAGATCATCTTCCCTCCGGGCCATCAC  
GCCACCGCATCCTGCCAGCCAGGCTAACATCATCTTCGACATCACGGAAGGGAACCTGCGGGACTCTTTTGACAT  
CATCAAGCGTTACATGGACGGCATGACCGTGGGTGTCGTGCGCCAGGTGCGGCCCATCGTGGGCCCATTTTCATGC  
CGTCTGAAGCTGGAGATGAACTATGTGGTGGGGGCGTGGTTTCCACCGAAATGTTGTCAACGTCCGCATCTT  
CGTCTCTGAGTACTGTTCTGAAGGGCTGGTCTGCCGCACAGCCGAGGTGCACCTCCAGGCCAAATCATTGCTGC  
CAGTGAAGTGTGGTCTGTACTTGTGTTTATAACCTCAGACTTTTTTAATGTTAGGTATTTGTAGCATAAGGCCAACAT  
GTATCAAGCTGAGCCAGATGAATAAGTCCATCTGATGTATTTTCGGTGTGTTAAAAAATGAGCCCAGTTGCTCAAC  
TGTTTGGTTGAAAACCTTGCTCATTTTTTAATGCGAAGGCTAAGTGTACCCCCCTTCTCTGCCTCTGGCTGGGC  
CTTGCTAAGGGCCAAGGAAAGAAAGACATTTTTTAGGGGGCAGCCAGTCCAAATGCCAAAAGAAGACCAGTTCTT  
GCCCTGATTGTATGAAATTTGACATTTTGGCACTTTTTTTTTTTTTTTTGGCCAATCAGATTTTCTATGTTCTAA  
GGACATGGCTGCTGTAGAAATAGCACAGACGTGGATGATAAATTATCCCCAGAAGCAGCATGACAGAATGCCTCGG  
GGAGCACTTGAAGGAAATTGCAGTTCTGTTGAAATAGAGGAAAATCCCTTGGTAAAGACACAGCCTGTTAGGC  
TCGTGTGGGCCCTCCAGTATGTTACCAGGGGAATGGCTGGGATTTCTCGGCACTCTGCATCATCCATCTTTTCTT  
ATAGGTGGGAAAATAACAACCTTTGTGATCCTCCT

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**FIGURE 316**

MERAAPSRRVPLPLLLLGGGLALLAAGVDADVLEACCADGHRMATHQKDCSLPYATESKECRMVQEQQCHSQLEE  
LHCATGISLANEQDRCATPHGDNASLEATFVKRCCHCCLLGRAAQAQQQSCEYSIMVGYQCGQVFRACCVKSQET  
GDLDVGGLQETDKIIIEVEEEQEDPYLNDRRCRGGGPCKQQCRDTGDEVVCSCFVGYYQLLSDGVSCEDVNECITGSH  
SCLGESCINTVGSFRCQRDSSCGTGYELTEDNSCKDIDECESGIHNCLPDFICQNTLGSRFRPKLQCKSGFIQ  
DALGNCIDINECLSIAPCPIGHTCINTEGSYTCQKNVPNCGRGYHLNEEGTRCVDVDECAPPAEPCGKGHRNVN  
SPGSFRCECKTGYYFDGISRMCVDVNECQRYPGRLCGHKCENTLGSYLCSCSVGFRLSVDGRSCEDINECSSPC  
SQECANVYGSYQCYCRRGYQLSDVDGVTCEDIDECALPTGGHICSYRCINIPGSFQCSCPSSGYRLAPNGRNCQD  
IDECVTGIHNCSINETCFNIQGAFRCLAFECPENYRRAATLQKEKTDTVRCIKSCRPNVTCVDFPVHTISHTV  
ISLPTFREFTRP EEIIFLRAITPPHPASQANIIFDITEGNLRDSFDIIKRYMDGMTVGVVVRQVRP IVGPFHAVLK  
LEMNYVVGGVVSHRNVVNVRI FVSEYWF

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**FIGURE 317**

GGGCGGCCAACGTGGGCTCGCTCTTCGACGACCCAGAAAACCTGCAGAAGAACTGGCTTCGGGAATTTTACCAGG  
TCGTGCACACACACAAGCCGCACTTC**ATGG**CCCTTGCACTGTCAGGAGTTTGGAGGGAAGAACTACGAGGCCTCCA  
TGTCACAGTGGACAAGTTCGTCAAAGAACTATTGTCGAGTGATGCGATGAAAGAATATAACAGGGCTCGAGTCT  
ACCTGGATGAAAACACAAATCCCAGGAGCACTTCACGGCACTAGGAAGCTTTTATTTTCTTCATGAGTCCTTAA  
AAAACATCTACCAGTTTGACTTTAAAGCTAAGAAGTATAGAAAAGTTCGCTGGCAAAGAGATCTACTCGGATACCT  
TAGAGAGCACGCCCATGCTGGAGAAGGAGAAGTTTCGCGAGACTACTTCCCCGAGTGCAAATGGTCAAGAAAAGGC  
TTCATCCGGACGAGGTGGTGATTGCAGACTGTGCCCTTGACTTGGTGAATATCCATCTTTTCCATGATGCTTCCA  
ATCTGGTCGCGCTGGGAAACAAGCCCTTCCGTGTACTCGGGAATCCGGCACAAGGCACTGGGCTACGTGCTGGACA  
GAATCATTGATCAGCGATTTCGAGAAGGTTTCCTACTTTGTATTTGGTGATTTCAACTTCCGGCTGGATTCCAAGT  
CTGTCGTGGAGACGCTCTCAGCAAAACCAACCGATGCAGACGGTCCGGGCCGCCGACACCAATGAAGTGGTGAAGC  
TCATATTTTCGTGAGTCGGACAACGACCCGAAGGTTATGCTCCAGTTAGAAAAGAACTCTTCGACTACTTCAACC  
AGGAGGTTTTCCGAGACAACAACGGCACCGCGCTCTTGAGTTTGACAAGGAGTTGTCTGTCTTTAAGGACAGAC  
TGTATGAAGTGGACATCTCGTTCCCTCCCAGCTACCCGTACAGTGAGGACGCCCGCCAGGGTGAGCAGTACATGA  
ACACCCGGTGCCAGCCTGGTGTGACCGCATCCTCATGTCCCGTCTGCCAAGGAGCTGGTGTGCGGTGCGGAGA  
GCGAGGAGAAGGTTGTACCTATGACCACATTGGGCCCAACGTCTGCATGGGAGACCACAAGCCCGTGTTCCTGG  
CCTTCCGAATCATGCCCGGGGCGAGTAAACCTCATGCCATGTGCACAAGTGTGTGTGTCGTGAGT**GAC**GTGGTG  
GGAAGAGATGCCAGCGCCACGAGAGGACACTTCGTGAGCCTCCCTGTAGCCGTGGACCGAATACGCACTCTTGAA  
AGCTGCATCGAGAACCCGCCCAAGCGCCACCTGCTAGACGGCCAGCCCCACACTTCGCTTCAGCCTCCGGACCAT  
TCCGGAGCAGCCCCACATACCTCACTGTCTCGTCTGTCTATGTGACATTAAGTAGAAATATTGGTTTTTTTTTTT  
TTTTAAATAAGTCACAGTCCTGTTGTCAAACCTCTAATAGACAGCAAAGAGGGTCTGTACCGTAGACTTCACAGT  
TTTCAGTTTTTAATGATTGCCAGTGGAGGGGCTTCTTCAGCACAGAGACCCCCACTGTGTCCAGGGACCCCCCTC  
TGCCAGGTGGAGGTGTGTCCAGGGGCTGGGGAAGCCGAGACGGGCACTCCCTCTGCCGGCCGGCAGCGTGGCCCT  
GAGCATGGCAAGGGGGTCTGTCTCTGCCGATGCTCCTTCCGCGGCACTGACTCTGCGCCGTGTACATGGTTTTT  
GAATCACACTGCAGCTGCTTTCCATTTTTATATATATATAAATATATATAAATATATACTTTTTTAAAAATAATTT  
ATAAATCTTACCAAACTTATGCTAAATATACTTTCCAGTATGAACGCACAGGAGAGTCCCATCAGCAGGCGGCA  
TTGGAGTCTAGGAGCTCAGCTGTGTGTCCATCAACACACAAATTCGTAAAAACACACATGGCCTCGCCATCGTG  
GGTAAATCGGCCCCACAGCACGTCTGCACCAGCGGGCCGTTACTCCCATGCCGTTCTTCTGTGTAATATTAAGA  
ACTGAATGTGAAGTTTATAGCTAGCCTGGGTGTACCTTTTAAGAATTTTGTAAACCGTTTGTCTGTCTTTTGTTA  
CTGTTTTATGGTGCCAAGTATCCTACGTTACAACAATAATATCATGGGAGAAATAGAAATAGCCTAGTTTGCTTC  
CAATAGAACTGCTTTTAACATGGGCTGTATATAAAATATTAAGAGAAACAAAACGTACATTTCTCATTGC  
TCCGCTACAGACAACCCATGTCATAACCTTGTTGCAAATATTTTCTCCTATAGCAGTAAGTACAGCATTAGAAG  
GTGATTAGAGAGTCTGTTGATGAAACACAAATGTATGTTTTTATTGATTTTTACTTTAGAACACTACAGAGTTCC  
TGGGACCGGGGTGAAGGCATTAGCTGGGTGTTTTGTGTGGGATAAATACTACCACTGCAAGTGAAGTGTGCTCGCT  
GCGGAATCTGTTCTTGGTGGAAGCACAGGTCCGTGTGCTGTGTGGTTGCCGCTGTCCGCGGTTCAACACGGAG  
TCCGCCCCGCGGGTTTTAGCTGTTGGTCGTTCTGAGGGGCCTTTGGAAGTGACCGGTCTGGTTCCTAAGCAATAA  
AATTGACCGTGGTGA

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**FIGURE 318**

MALHCQEFGGKNYEASMSHVDKFKVCELLSSDAMKEYNRARVYLDENYKSQEHFTALGSFYFLHESLKNYQFDFK  
AKKYRKVAGKEIYSDTLESTPMLEKEKFRRLPRVQMVKKRLHPDEVVIADCAFDLVNIHLFHDASNLVAVETSP  
SVYSGIRHKALGYVLDRIIDQRFEKVSYFVFGDFNFRLDKSKSVVETLSAKPPMQTVRAADTNEVVKLIFRESND  
RKVMLQLEKKLFDYFNQEVFRDNNGTALLEFDKELSVFKDRLYELDISFPSPYPYSEDARQGEQYMNTRCPAWCD  
RILMSPSAKELVLRSESEEKVVITYDHIGPNVCMGDHKPVFLAFRIMPAGKPHAHVHKCCVVQ

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**FIGURE 319**

CAGAGTCACTCCTGCCTTCACCAATGAAGTCCAGCGGCCTCTTCCCCTTCCTGGTGCTGCTTGCCCTGGGAACTCT  
GGCACCTTGGGCTGTGGAAGGCTCTGGAAAGTCCTTCAAAGCTGGAGTCTGTCCTCCTAAGAAATCTGCCCAGTG  
CCTTAGATACAAGAAACCTGAGTGCCAGAGTGACTGGCAGTGTCCAGGGAAGAAGAGATGTTGTCCTGACACTTG  
TGGCATCAAATGCCTGGATCCTGTTGACACCCCAAACCAACAAGGAGGAAGCCTGGGAAGTGCCCAGTGACTTA  
TGGCCAATGTTTGATGCTTAACCCCCCAATTTCTGTGAGATGGATGGCCAGTGCAAGCGTGACTTGAAGTGTTG  
CATGGGCATGTGTGGGAAATCCTGCGTTTCCCCTGTGAAAGCTTGATTCCTGCCATATGGAGGAGGCTCTGGAGT  
CCTGCTCTGTGTGGTCCAGGTCCTTTCCACCCTGAGACTTGGCTCCACCCTGATATCCTCTTTGGGGAAAGGC  
TTGGCACACAGCAGGCTTTCAAGAAGTGCCAGTTGATCAATGAATAAATAAACGAGCCTATTTCTCTTTGCAC

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**FIGURE 320**

MKSSGLFPFLVLLALGTLAPWAVEGSGKSFKAGVCPPKKSAQCLRYKKPECQSDWQCPGKKRCCPDTCGIKCLDP  
VDTPNPTRRKPGKCPVTYQGCLMLNPPNFCEMDGQCKRDLKCCMGMCVKSCVSPVKA

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**FIGURE 321**

CCCAGAAATTCTACCCAAGCTCCCTCAGCACCAATGTACCGAGCACTTCGGCTCCTCGCGCGCTCGCGTCCCCTCG  
TGCGGGCTCCAGCCGCAGCCTTAGCTTCGGCTCCCGGCTTGGGTGGCGCGGCCGTGCCCTCGTTTTGGCCTCCGA  
ACGCGGCTCGAATGGCAAGCCAAAATTCCTTCCGGATAGAATATGATACCTTTGGTGAACATAAGGTGCCAAATG  
ATAAGTATTATGGCGCCAGACCGTGAGATCTACGATGAACTTTAAGATTGGAGGTGTGACAGAACGCATGCCAA  
CCCCAGTTATTAAAGCTTTTGGCATCTTGAAGCGAGCGGCCGCTGAAGTAAACCAGGATTATGGTCTTGATCCAA  
AGATTGCTAATGCAATAATGAAGGCAGCAGATGAGGTAGCTGAAGGTAAATTAAATGATCATTTCCTCTCGTGG  
TATGGCAGACTGGATCAGGAACCTCAGACAAATATGAATGTAAATGAAGTCATTAGCAATAGAGCAATTGAAATGT  
TAGGAGGTGAACCTTGGCAGCAAGATACCTGTGCATCCCAACGATCATGTTAATAAAAAGCCAGAGCTCAAATGATA  
CTTTTCCACAGCAATGCACATTGCTGCTGCAATAGAAGTTCATGAAGTACTGTTACCAGGACTACAGAAGTTAC  
ATGATGCTCTTGATGCAAAATCCAAAGAGTTTGCACAGATCATCAAGATTGGACGTACTCATACTCAGGATGCTG  
TTCCACTTACTCTTGGGCAGGAATTTAGTGGTTATGTTCAACAAGTAAATATGCAATGACAAGAATAAAAGCTG  
CCATGCCAAGAATCTATGAGCTCGCAGCTGGAGGCACTGCTGTTGGTACAGGTTTAAATACTAGAATTGGCTTTG  
CAGAAAAGGTTGCTGCAAAAGTGGCTGCACTTACAGGCTTGCCTTTTGTCACTGCTCCGAATAAATTTGAAGCTC  
TGGCTGCTCATGACGCTCTGGTTGAGCTCAGTGGAGCCATGAACACTACTGCCTGCAGTCTGATGAAGATAGCAA  
ATGATATTGATTTTTGGGTTCTGGTCCTCGGTCAGGTCCTGGGAGAATTGATCTTGCCTGAAAATGAACCAGGAA  
GCAGTATCATGCCAGGCAAGGTGAACCCTACTCAGTGTGAAGCAATGACCATGGTTGCAGCCCAAGTCATGGGGA  
ACCATGTTGCTGTCACTGTGCGAGGCAGCAATGGACATTTTGAGTTGAATGTTTTCAAGCCAATGATGATTAAAA  
ATGTGTTACACTCAGCCAGGCTGCTGGGGGATGCTTCAGTTTCCTTTACAGAAAACCTGCGTGGTGGGAATCCAGG  
CCAATACAGAAAGGATCAACAAGCTGATGAATGAGTCTCTAATGTTGGTGACAGCTCTCAATCCTCATATAGGGT  
ATGACAAGGCAGCAAAGATTGCTAAGACAGCACACAAAAATGGATCAACCTTAAAGGAAACTGCTATCGAACTTG  
GCTATCTCACAGCAGAGCAGTTTGACGAATGGGTAAAAACCTAAGGACATGCTGGGTCCAAAGTGATTTACATAAA  
TTTATAATGAAAATAAACATGTATAAAATTTAAAAAACAGACTCCCATTTCTTAAAAACGGATAAGTTTGAAAG  
GAAACTGCTATTGAACTTAAGCATCTCTAGCAGAGCAATTTGATCAGTATATAAAACCCTAGGATGTGCTAGGTC  
TAAGATGGATTAAACAAGTATAAAATAAAATACATTTATAAAATAAAAAGGAAAACAGACTTAAAA



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**FIGURE 322**

MYRALRLLARSRLVRAPAAALASAPGLGGAAVPSFWPPNAARMASQNSFRIEYDTFGELKVPNDKYYGAQTVRS  
TMNFKIGGVTERMPTPVIKAFGILKRAAAEVNQDYGLDPKIANAIMKAADEVAEGKLNDFPLVVWQTGSGTQTN  
MNVNEVISNRAIEMLGELGSKIPVHPNDHVNKSQSSNDTFPTAMHIAAAIEVHEVLLPGLQKLHDALDAKSKEF  
AQIIKIGRTHQTQDAVPLTLGQEFSGYVQQVKYAMTRIKAAMPRIYELAAGGTAVGTGLNTRIGFAEKVAAKVAAL  
TGLPFVTAPNKFEEALAAHDALVELSGAMNTTACSLMKIANDIRFLGSGPRSGLGELILPENEPGSSIMPGKVNPT  
QCEAMTMVAAQVMGNHVAVTVGGSNGHFELNVFKPMMIKNVLHSARLLGDASVSFTENCVVGIQANTERINKLMN  
ESLMLVTALNPHIGYDKAAKIAKTAHKNGSTLKETAIELGYLTAEQFDEWVKPKDMLGPK

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**FIGURE 323A**

CCTTGGCCGAGACCGGTCTCTGCGGAGAGGGCCCCGCCCTCTGTGAAGGCCCGCCCGGAATTGGCGGCGGCGC  
TGCAGCCATTTCCGGTTTTCCGGGAGGTGGGTGGGGTGCAGGAGCGGACTTGGAGCAGCCGCCCGCTGCCACCG  
CCTACAGAGCCTGCCTTGCCTTGGTGTCTGCCAGGAAGATGCGGCCGAGCCCGGAGGCTGTCTGCTGCCGCCGCA  
CGGTGCGGGCGAATGGCTGCGTGGCGAACGGGGAAGTACGGAACGGGTACGTGAGGAGCAGCGCTGCAGCCGCGAG  
CCGAGCCGCCCGCCCGCCAGATCCATCATGTTACACAAAATGGAGGACTATATAAAAGACCGTTTAATGAAGCTT  
TTGAAGAAACACCAATGCTGGTTGCTGTGCTCACGTATGTGGGGTATGGCGTACTCACCTCTTTGGATATCTTC  
GAGATTTCTTGAGGTATTGGAGAATTGAAAAGTGTACCATGCAACAGAAAGAGAAGAAACAAAAGGACTTTGTGT  
CATTGTATCAAGATTTTGAAGAACTTTTATACAAGGAATCTGTACATGAGGATAAGAGACAACCTGGAATCGGCCAA  
TCTGTAGTGTGCTTGGAGCCAGGGTGGACATCATGGAGAGACAGTCTCATGATTATAACTGGTCCTTCAAGTATA  
CAGGGAATATAATAAAGGGTGTATAAACATGGGTTCTTACAACCTATCTTGGATTGTGCAGGAACTACTGGATCAT  
GTCAAGAAGCAGCCGCCAAAGTCTTGGAGGATATGGAGCTGGAGTGTGCAGTACTCGGCAGGAAATTGGAAACC  
TGGACAAGCATGAAGAACTAGAGGAGCTTGTAGCAAGGTTCTTAGGAGTAGAAGCTGCTATGGCGTATGGCATGG  
GATTTGCAACGAATTCAATGAACATTCTGCTCTTGTGGCAAAGGTTGCCTGATTCTGAGTGATGAACCTGAACC  
ATGCATCACTGGTTCTGGGAGCCAGACTGTGAGGAGCAACCATTAGAATCTTCAAACACAACAATATGCAAAGCC  
TAGAGAAGCTATTGAAAGATGCCATTGTTTATGGTCAGCCTCGGACACGAAGGCCCTGGAAGAAAATTCTCATCC  
TTGTGGAAGGAATATATAGCATGGAGGGATCTATTGTTTCGTCTTCTGAAAGTGATTGCCCTCAAGAAGAAATACA  
AGGCATACTTGTATCTGGATGAGGCTCACAGCATTGGCGCCCTGGGCCCCACAGGCCGGGGTGTGGTGGAGTACT  
TTGGCCTGGATCCCGAGGATGTGGATGTTATGATGGGAACGTTTACAAAGAGTTTTGGTGCTTCTGGAGGATATA  
TTGGAGGCAAGAAGGAGCTGATAGACTACCTGCGAACACATTCTCATAGTGCAGTGTATGCCACGTCATTGTCAC  
CTCCTGTAGTGGAGCAGATCATCACCTCCATGAAGTGCATCATGGGGCAGGATGGCACCAGCCTTGGTAAAGAGT  
GTGTACAACAGTTAGCTGAAAACACCAGGTATTTTCAAGGAGACGCCTGAAAGAGATGGGCTTCATCATCTATGGAA  
ATGAAGACTCTCCAGTAGTGCCTTTGATGCTCTACATGCCTGCCAAAATTGGCGCCTTTGGACGGGAGATGCTGA  
AGCGGAACATCGGTGTCGTTGTGGTTGGATTTCCTGCCACCCCAATTATTGAGTCCAGAGCCAGGTTTTGCCTGT  
CAGCAGCTCATACCAAGAAATACTTGATACTGCTTTAAAGGAGATAGATGAAGTTGGGGACCTATTGCAGCTGA  
AGTATTCCCCTCATCGGTTGGTACCTCTACTGGACAGGCCCTTTGACGAGACGACGTATGAAGAAACAGAAGACT  
GAGCCTTTTTTGGTGCTCCCTCAGAGGAACCTCTCCCTCACCCAGGACAGCCTGTGGCCTTTGTGAGCCAGTTCCAG  
GAACCACACTTCTGTGGCCATCTCACGTGAAAGACATTGCCTCAGCTACTGAAGGTGGCCACCTCCACTCTAAAT  
GACATTTTGTAAATAGTAAAAAACTGCTTCTAATCCTTCTTGTCTAAATCTCACCTTTAAAAACGAAGGTGACT  
CACTTTGCTTTTTTCACTCCATTAAAAAACATTTTATTTTGCAACCATCTACTTGTGAAATCACGCTGACCCTA  
GCCTGTCTCTGGCTAACCACACAGGCCATTCCCTCTCCAGCACCTTGACAGCTTGGGCCCATCAAGAGCTACT  
GCTGGCCCTGGCTCCGAGCCTGGATACTTACCTGGCCCTCCTCCCTAGGGAGCAAGTGCCTTCCACTTACTTCC  
CATCCAGGTCTCAGAGGTCTCAAGGCCAACCTTGAATCCTTATTTAACCATTCAAGTAATCAACGGAAGTTTTT  
ACCTTTAATCTTAAGTTTAGCCTTTTAAAGAAAACAGTAAGCGATGACTGCTGAAAGGCTCATTGTGTAATCTC  
CCAAGGTTTGGTCTTATTCATTTTCTTCTGGTCACCAGATGATTTCTTCCCTTACCATCAATACTTCTTCAT  
AATGGTCACAGTCTGAGGATGTGCGCAAATCTGGTCTTCCCAAGCTCTAACCCTAACACGTCCCACCCCTTT  
TTAAAGCACTTACTGTTTTTCAAGACCCATATCCCACCTGGTGAGAAGGCCACTCTCACATCTGAGTGTGGG  
TACAAAGCTGCTCCGTAGAGTGATGTGCACTCCTGGTGGGTGAGGGGCAGGGGCAGTGGCAGTGTGCAAGAATT  
GATTACTCCTTGCAGAGCCTGTGGCTTGCAATTTCTACTGCTTTTCTACGTTTGAAAATTATGACAGTCTCTGGCT  
AGGTCTGGGTCCAGATTAGGATTTAACTGATAAAGGAACTGTTGGTAAATCCTCTGCTCAGAAAGCATTATC  
ATGTTTCTATTTAAGGATTAGGTTTATTAATTTAGGCCTCTTAGAAGCTAACCCTTAAATATTACTCTTCTGA  
ATGCTAGTTCTCTTTTATTTCTGATGTCCTAAGTCAATTGAATCTGGCATCTGGGGCTAGGGTCTGCCTGTCTAC  
ATATTTTTTATTTTTTCTGAGAAATCTGAACACATAGATCTCTTTCTAAACTGACATTTTCTATTTTGAAGT  
TTTTTCACTATAACCAGGTAAAGGGACTTCTTTTCAAGAGAGCTTTTACTGCTGACCAAGAACAATCTGAAA  
ATCACCATTTTAAAGTTATTTTTTCAAGTTGAACCAAGTTTAAAGTGAAGAGGACTTTTGGCATATTATACCCAGG  
ATCAGTTTGTCTTTTTGTATCCATCAAGTATTACAGGAGAAGGATTGGGAACAGAATGGAAAACAGTGTATGAA  
AGTCATGTTACAGGCCGAGTGCAGTGGCTCACACCTGTAATCCTAGCACTTTGGGAGGCTGAGGCAGGTGGCTCA  
CTTGAGGTGAGGAATTCAAGACCAGCCTGGCCAACATGGTGAACCCCGTCTCTACTAAAAAGACAAAAAATTAG  
CTGGGCGTGGTGGCGGGCACCTATAATCCACCTACTTGGTAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAG

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**FIGURE 323B**

GCGGAGGTTGCAGTGAGACGAGATTGTGCCACTGCACTCTAGCCTGGGTGACAGAGCAAACTGTGTCTCAAAAA  
AAAAAAGTCATGTTACACATTTAAGTTTTTGAAATTGCTCCTTTTATCGGTAAAGATTCTCAATCCAAATTCTC  
CTGGGTGTGTTGTCATCAGCTGTGATATGTTTGTGCACATTACGTATAGCAGAGGATGTAAGCAATATTATTGTT  
TGTGAAGTTTTGTTTTTAATGTCTTGAGTATGAGTTATGTTTAGTCACTGTCAGCATCTGAGAACTTTAATAAGC  
CCTTGAGATATTCCAAAGTTTTATTTTACTTTTTTAAAGAACAGAAAAAGATGAATGAAAGAACCAAGGAGAGAT  
GCAGAGACTATATTTAGCATGTATAGGTTAAAGTAAGAAGGAGGTTGTGGTAACTAAATAGGAGTCCTATAAAAT  
CAAATACATTGTCAACCTTTTCTGCACATCTAGTTTCTTACCATAGAATCCCAGTGAATACCACATAGCTTTTTG  
CACTGCAGTTACTATTTACTAATGTAAACGTAGGGTTTGTAAAGTCAAACTTATAAGCAATGAACTTACCTG  
CTAGTCTTTTTATTTTGGCTTGCATGAAGTCACTGCAAATTCAAATGTCAGTACCGGCATTTAAAAATATATCTAT  
ATCACTTTGTTGGTACAAAGTTATTTCAAGATAAGTGTAATTTTGTACAAGTTTATTTTGAAGAGACAAATCTC  
CTGTGATCTATGCAGGACCTCTGTACTTTCTAAAGAACAAATGTTATGTAGACATTATACATGGTTGGTTGTCT  
CTTCTTGAACTGTAATGTAAATCTAGGGTCCAGTCATATCCTAGGTATCATCATTTATCCAAGTACTTGGAGGA  
ATACAAGTATATATAAATACAGTCATTGAGAATAAGTCGATTTGAGGCATACAAGAGTAGTTTCTTACACAGTTT  
AACACAGCCTGATTCAAGACTCTGATAGGATTCAAACAGATACCGGTTAACCATGACTACCAAACTGATCATCT  
GAGTCGATTGATAGAGGTGTGACTAGTCCCTAGCACTTTTTCTCATTCTCTTTTTTATTTCAGCATTGCTGTTACC  
TATTTTCAGGTTTATAAGACCTCTTTTCAGCAGATCACAACAGAGCCAGGAAATGCATAGCTAGGAGATGTCAAAA  
GCCCATATGAGGAGTGGACCAAGCAGCAGTGGCGGTTTTCTCCTCGCATCTTTTTTTTTTTTAAAGCTTTAACTTAGC  
AGGGGCATGGACTTTATAGCACTTTTTCAACTTTTTGCTTTGCTTTGGATAAGAAATCCTTACCTTTAAAAAAG  
CTTCTAGTCTCCATAACCCCCAAAGTACTGCTTATTTGTTTGAAGAATCCAGCCATCGTAGTGCTTTAGTCACTA  
TCGTAAACATTTCATGATAGGGCAAGGATTTTAAACAGGATTCCTGCTTCTGTAGTCATCAAGGTGAACAGAAGC  
ATCCTACACAACCCTAAGGGCTCTATGTTTGTGTCATGCCCTCTTCAAACACCAAGGAGTTGAACATGCTTCCAG  
TGATTTGTCTCCGTAATGCCTTCTTCTTTATTTGGCCTTCTTTCTTTCTGTACCTTCAAGTTCTTGATTTTA  
AAATTCCAACCTCTAGAGAAAACCAATATATGGTGGTGCTGGGCTTTGAAGATAGCATATCAGACGCCTTGGTTCT  
GTTTGTACACTTAGCCTTACATTTTTCAGGAGGAGGCTTTTCATTAGGGGCTTAAGCTAGCTCCTTTGGCTTTTAAA  
AAAAATTTTTTTTCAAATTTCTTTCATTACCTAAGGGAGCCTGCATCTAAATTTCTCAACTAGTTTCAGCCTAGCTG  
AATTTTCTAGTGTGTAATACACTTTGCTTCTCTTATTGGTGAAAACAGGGGGATGAGTGGCTTCCATGGAGA  
GATTTCTGATTTCTCAGGGAGGAAAAAGTGATGACATTTACCACTACTTTTATGTTTTTCCCCTTTTTTCCAAA  
TTGATAAGGATTTCTGGTTCCTAGTGATCCGGGATTGGGCAACAGTGCAGAACTGCCAGTCATGCCGTAGGCCGT  
GAAGAAAAGATGTGAGTAACTGTTGTTTTGCAAGGATTTGTAGGGTTATGGGCAGTTGTTGTTTGAAGCATTGCT  
ATGACCTAATTCCCAAGGTATCTTTCTCTCTTGGTGTCTAGGTAAGCCAATGAGCTTTAATCTCTACTTGCTA  
TAACCGTGTGCTTAGAAAAAGAGGTGAGAGTAGTGGTTTTCTTCAAACCTGTCCACATTTCATGAAGATTATGAAT  
TGTTAGGACAGCCAGGGCAAGATAGACCCTGTCTCTACAAAAATTTTTTCTAAATTAACCGGCATGGTGGTGC  
CTGCCTGTAGTCCCACCTGTGTGGGAGAATCACTTGAGCCTGGGAGGTCAAGGCTGCAGTGAGCCATGATTGCAC  
CCCTGCACTCCAGCCTGGGTGACAGAGTGAGACCCTGGCTCAATAAGAGGGGGAAAAAAATTTGTTAGGAGCTGG  
GTGCGGATGCAGCCTGCAATCCAGCTACTTGAGAGGCTGAGGCCGGAGGATTGCTTAAACCCCAAGAATTTGAGC  
GTAGCCTGGGCAACACAGCAAGACCCCATCTAAGAAAAAATGTTTTTTAAATCAGCTTAGCCCAAAGGGGTTGT  
GAATGGGGAGGTATAAAAAAGCAAAGATTATTTTTTGGCTACTAAGCCAAGAACTTACAGGGATTTTTTTTTTCAG  
TCCCAGAACCTACAGATACCCTGCTACTTGCTTCACGTGGATGCTCAGTGCCCAGCAGCCATCTTAATACATTAA  
ACCAGTTTAAAAAATACCTTCCATGTGGAGAAAAACATGTCTTTTTCTCGCCTCACTTTATCCACATGAAATGT  
GTGCCCATGGCTGGGCGCAGTGGCTCACCTGTAATCCCAACACTTTGGGAGGCTGAAGCAGGCAGATTGCTTGAG  
GCCAGGAGTTGAGAACAGTCTGGCCAACATGGCGAAACCTCATCTCTACTAAAAATTACAAAAATTAGCCGGGCA  
TGGTGGCACATGCCTGTAATCCAGCTACGTGAGGAGGTGAGGCACAGGAATTGCTTGAACCCAAGAGGCAGAG  
GATGCAATGAGCCAAGATCACACCACTGCACTCCAGCCTTGGCGACAGAGGGAGACTCTGTCTC

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**FIGURE 324**

MRPEPGGCCCRRTVRANGCVANGEVRNGYVRSSAAAAAAAAAGQIHHVTQNGGLYKRPFNEAFEETPMLVAVLTY  
VGYGVLTLFGYLRDFLRYWRIEKCHHATEREEQKDFVSLYQDFENFYTRNLYMRI RDNWNRPICSVPGARVDIME  
RQSHDYNWSFKYTGNI IKGVINMGSYNYLG FARNTGSCQEAAKVLEEYGAGVCSTRQEIGNLDKHEELEELVAR  
FLGVEAAMAYGMGFATNSMNIPALVGKGCLILSDELNHASLVLGARLSGATIRIFKHNNMQSLEKLLKDAIVYGQ  
PRTRRPWKILILVEGIYSMEGSIVRLPEVIALKKKYKAYLYLDEAHSIGALGPTGRGVVEYFGLDPEDVDVMMG  
TFTKSFGASGGYIGGKKELIDYLRTHSHSAVYATSLSPVVEQIITSMKCIMGQDGTSLGKECVQQLAENTRYFR  
RRLKEMGFIIYGNEDSPVVPLMLYMPAKIGAFGREMLKRNIGVVVGFPATPIIESRARFCLSAHTKEILD TAL  
KEIDEVGDLLQLKYSRHLVPLLD RPFDETTYEETED

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FIGURE 325A

GTGGAGATGAATGGCGGGCGCGGGCGACCGGGAGCCGGACCCCTGGGAGGTTCGGAGCTTGTTCGAGGGATGCGGCTG  
GCGCTGCCCCGAGCATGGCGACCGCGTGGCTGAGCTCTTCTGTGCGCCGCTGCCGCCGCTGCGTGTGCGCGCTTTG  
CCCGGTGCTGGGCGCGCACCGTGGCCACCCCTGTGGGCCTGGCGCTGGAGGCAGCGGTGCACGTGCAGAACTCAG  
CCAAGAATGTTTAAAGCAGCTGGCAATCAAGAAGCAGCAGCACATTGACAACATAACCCAGATAGAAGATGCCAC  
CGAGAAGCTCAAGGCTAATGCAGAGTCAAGTAAACCTGGCTGAAGGGGAAATTCAGTGAAGTCAAGATTACTACT  
TGACGAAGAGGAAGCGCTGGCCAAGAAATTCATTGATAAAAAACACGCAGCTTACCCTCCAGGTGTACAGGGAACA  
AGCTGACTCTTGCAGAGAGCAACTTGACATCATGAATGATCTCTCCAACAGGGTCTGGAGTATCAGCCAGGAGCC  
CGATCCTGTCCAGAGGCTTCAGGCATACACGGCCACCGAGCAGGAGATGCAGCAGCAGATGAGCCTCGGGGAGCT  
GTGCCATCCCGTGGCCCTCTCTTTTGGAGCCGTCAGAGCTTCTTTAAGGGCCTCGTGAAGCCGTGGAGAGTAC  
ATTACAGAGCCATTGGACATTGCGCTTTCCCGACCAATCACGCCTACAGTGCTTTGAAGGTTTCTCTCTCTAG  
GCTAGTTTCAAACAGGCCCTAAACAAGTCTGCTGCTGCCCTCTCATCAGACCTCCGCACCCTCACCCACCATTCA  
CTTAACTACTTTAATCCAGTTTCTTCAAAGTGATACCCACAGGTAAGCCCTCAGCATCTGAATACATCATC  
CGCAGCCTGGGAACCTTCTCCCTCGTACAGCACAGGAACCTGACACATAGTAGGCACACAGTAAACGTTTGTGAA  
TGAATGGGAGTCATCCAGTCTGACTCTTCTGTCTCTTGAGGTCCCTTGAATCTTCCGCTTCTCCACCGATT  
TCAGCGTGTCCACATCACAGCTCCCTCCAGAAGCTGCAAGAGCTTCTTAGCAGTTCTGGTCTGAACCTCTCCC  
AGTCTCATCTTCCACCCTAAACTAGAGTGATCTTCTTAAACTTCACTTAACCCCTCAGCTATGAAAGGCTT  
CCAGGAGTTTCCATGAAATAACAAAAAAATAACAAGCGCTCACCTTAGCATTCAAGGCTTGTCTAGTCTGCC  
AAAATTACTTATCCTCACCTAGCTCCTACCCTCTTCTTAGAGACTCTCCAGTCAGAAATGTGTGCGATAGTTCC  
ACCTCCACACCTCTCTGCTGCCAGCACATTTCATGCAGAAAAGTCTTTTACCTGTCTCAGTCTTCCGCAGGCTTA  
CCTGCGCCAGGAAGTCTAACCAAGGAACAAGAATCTCACTATCAGAGCCACAAATCTGGGACCTGTCTTTCCAAC  
TAAATTGGAGGCTTTGGAAGGGCAGCTTTGTCTATACTCTCTCCACCCTGAAAAGTTCCAGAAAGCCCTTCC  
CTCCCAAGCAGTGAATTAATAACCAGCAGGTGCCTATCACTGAGTAACAGAGAAGAGCTGAGTTAGGCGGGCCTCAC  
AGGTCACCCAGCCAGATCTCATCTGGGGAGTCTGAGGTCTGAAAGAAAGCAGAGCTGCGTAAAGTTACCCCGGG  
GTGATATAGGGGGGCCAGACGTGTGCCCGTTTACCCACCCCGAGGCAAGCATCTGACCTGTCCCCTGGCCACG  
CCTTAGGCCCAGCTTTCAACCTGCTTACTCATTTCTCAGGGGATTTTGGGAAGGAATCAGCAGGTGACAGTTGCT  
AAGCAACCAAAGGGCGTGGTGTTCCTCACTGTCTTGGGACAAAAGGGTAAGAGCACCTTAGATCCAGATGTT  
GCCAAGGAAACCCAGAGTGCCAGCTGTCTGGAATGAAGTGACAGAGGTAGAAAACAGTAGGCCCTCACAGGAGG  
CCACCTTCGCTAGCAGGGAGTGGGAGGCTTCTTCCAGGGATTTGTGTCTCCGTTCTGAAGGTTCTGCGTCTGT  
TTTGTCAATTCCCTAGACGTTTTTGAAGTTATATTCTGTTAAAGCATCTTCATAGGTGCTTGGTGGGAGGCCAAG  
GTCGCCGAATCTCGTGGTTTTAAATAGACTTTTCACTGTCATTAGTTTGAACCATATAAACTGACAATTTTCAATA  
GTTTTTGAAGTTAAATAGGCACTTTTATATGAGACAATGTAGCAGAATACCAGGCAGACAGAACCTTGCAAACA  
CCTTAACCTTCTAACCAAGACTTTTAAACTCTGGCTGGACAGAGTTTTAAGCACTATGCTGCAGGAATCCTGAGA  
AAAAGGGGAAATTAATTCTATTAGGAATGGCCAAACTGAATTGTGACAGGCAGAGGGTGTTCCTGACAGAGGGA  
AGATGAATACACTTGACCCCAACATTTCTGCCATCCCTGATGACCAAGACCTCTTCCAGACCCACAGCTGCAG  
GGGCAAGTAATAACAGCTCTTAATAGTTTATAATGCACTGTTTTAATGCTTTACGACTAACTCATCTGATCCT  
TTCATCAGCCCTAGAGGGTAGAAAGTTTTCCCAATTCTACACATGGCAAAATGGAGACCCAGAGTCACTTGCCCA  
AGGTCGCACAGCTAGTGGTGGAGCTGGAGTCTGGGCCAGGCTGTGAGTTCCAGGTCTGTGCTCATGGCCACCAG  
GCCATACTGCTCAGGGTGAATGCAGCTGGTCTCTGGCCAGTGCCTGGTGTCTTGGCCCCCTCTCGTGGAGCTACTG  
CCCATGATGCTTTTCTAGTGCTGGTTACTCTGCGAGACTTGAGTCTACCTTTGGAGTGCCTTCCCTGGGGGTCT  
GAGATGAGGCCTTATGGCCCAGAGGGGAACCTTGATTCAAAAATTTGGGATTTCATGTAGCAGAGACAGAGCTAGAC  
TGTAAGGTACAAACTAGCTGTGTCAAGGCCCGTGATAGCCAGAAAGCGGCAGTTTTCAGTCCATATCAATTGTG  
TGACCAGGGCTAGTCACTTTTACTTCTCAGTGCCATCTATAAAATGGGGATAATAGCACTACCTACCAAGTGCT  
GTGAGGCTCAAATGAGCCAAAGGTTATAAACTTGCCTTAAAATATAGTCTTATACAAAATAGCTGGGCGTGG  
TGGTGCATGCCTGTAATCCCAGCTACTAGGGAGGCTGAGGCAAGAGAGTTGCTTGAACCCAGGAGGCGGAGATTG  
CAGTGAGCTGAGATTGCACCACTGCACTCCAGCCTGGGGACAGAGCAAGACTCTTGTCTCAAAAAAACAAAAA  
AACATATATACTGCTGTATCATGCCAGGATTTATCAGCATTCCTAAGGGAGCTTGACGGTACTGACCGAGTGCT  
GAGACTACTGGTATTCCCAGCTGCCATGTGGCAGCAGCAGGAGCTACTAGAATATTCTCAGCACAGGAATGAGGC  
TTCCTTGGTTTTCCATGTCTGTAAGGGTTACTGATCACTTACCTTCTTCTTTTTCAGACTTGAATCTGTAGACATT

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**FIGURE 325B**

TCTTTATTGATATGGCAAATTGCTTGCAGATATTTTAAATGACAGCAATTTTCTAATATTGGTTTAATAAAAT  
GTGAATAATGTCCTTTT

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**FIGURE 326**

MAGAATGSRTTPGRSELVEGCGWRCPEHGDRVAELFCRRRCRRVCALCPVLGAHRGHPVGLALEAAVHVQKLSQEC  
LKQLAIKKQQHIDNITQIEDATEKLKANAESSKTWLKGKFTELRLLLDEEEALAKKFIDKNTQLTLQVYREQADS  
CREQLDIMNDLSNRVWSISQEPDPVQRLQAYTATEQEMQQQMSLGELCHPVPLSFEPVKSFFKGLVEAVESTLQT  
PLDIRLSPTNHAYSALKVSSPRLVSNRP

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**FIGURE 327**

CCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTGCCTAATTTACAGCAACCATGAGTACAAA  
TGGTGATGATCATCAGGTCAAGGATAGTCTGGAGCAATTGAGATGTCACTTTACATGGGAGTTATCCATTGATGA  
CGATGAAATGCCTGATTTAGAAAAACAGAGTCTTGGATCAGATTGAATTCCTAGACACCAAATACAGTGTGGGAAT  
ACACAACCTACTAGCCTATGTGAAACACCTGAAAGGCCAGAATGAGGAAGCCCTGAAGAGCTTAAAAGAAGCTGA  
AACTTAATGCAGGAAGAACATGACAACCAAGCAAATGTGAGGAGTCTGGTGACCTGGGGCAACTTTGCCTGGAT  
GTATTACCACATGGGCAGACTGGCAGAAGCCCAGACTTACCTGGACAAGGTGGAGAACATTTGCAAGAAGCTTTC  
AAATCCCTTCCGCTATAGAATGGAGTGTCCAGAAATAGACTGTGAGGAAGGATGGGCCTTGCTGAAGTGTGGAGG  
AAAGAATTATGAACGGGCCAAGGCCTGCTTTGAAAAGGTGCTTGAAGTGGACCCTGAAAACCTGAATCCAGCGC  
TGGGTATGCGATCTCTGCCTATCGCCTGGATGGCTTTAATTAGCCACAAAAATCACAAGCCATTTTCTTTGCT  
TCCCCTAAGGCAGGCTGTCCGCTTAAATCCAGACAATGGATATATTAAGGTTCTCCTTGCCCTGAAGCTTCAGGA  
TGAAGGACAGGAAGCTGAAGGAGAAAAGTACATTGAAGAAGCTCTAGCCAACATGTCCTCACAGACCTATGTCTT  
TCGATATGCAGCCAAGTTTTACCGAAGAAAAGGCTCTGTGGATAAAGCTCTTGAGTTATTAAGGCTTGCA  
GGAAACACCCACTTCTGTCTTACTGCATCACCAGATAGGGCTTTGCTACAAGGCACAAATGATCCAAATCAAGGA  
GGCTACAAAAGGGCAGCCTAGAGGGCAGAACAGAGAAAAGCTAGACAAAATGATAAGATCAGCCATATTTCAATTT  
TGAATCTGCAGTGGAAAAAAGCCACATTTGAGGTGGCTCATCTAGACCTGGCAAGAATGTATATAGAAGCAGG  
CAATCACAGAAAAGCTGAAGAGAATTTTCAAAAATTGTTATGCATGAAACCAGTGGTAGAAGAAACAATGCAAGA  
CATAATTTCTACTATGGTCGGTTTTAGGAATTTCAAAAGAAATCTGACGTCAATGCAATTATCCATTATTTAAA  
AGCTATAAAAATAGAACAGGCATCATTAACAAGGGATAAAAGTATCAATTCTTTGAAGAAATTGGTTTTAAGGAA  
ACTTCGGAGAAAGGCATTAGATCTGGAAAGCTTGAGCCTCCTTGGGTTCGTCTATAAATTGGAAGGAAATATGAA  
TGAAGCCCTGGAGTACTATGAGCGGGCCCTGAGACTGGCTGCTGACTTTGAGAATCTGTGAGACAAGGTCCTTA  
GGCACCCAGATATCAGCCACTTTACATTTCAATTTATGCTAACATTTACTAATCATCTTTTCTGCTTAC  
TGTTTTCAGAAACATTATAATTCAGTGAATGATGTAATTCCTGAATAATAAATCTGACAAAATATT



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**FIGURE 328**

MSTNGDDHQVKDSLEQLRCHFTWELSIDDDDEMPDLENRVLDQIEFLDTKYSGIHNLLAYVKHLKGQNEEALKSL  
KEAENLMQEEHDNQANVRSLVTWGNFAWMYMHMGRRLAEAQTYLDKVENICKLSNPFYRMECPEIDCEEGWALL  
KCGGKNYERAKACFEKVLEVDPENPESAGYAISAYRLDGFKLATKNHKPFSLPLRQAVRLNPDNGYIKVLLAL  
KLQDEGQEAEGEKYIEEALANMSSQTYVFRYA AKFYRRKGSVDKALELLKKALQETPTSVLLHHQIGLCYKAQMI  
QIKEATKGQPRGONREKLDKMIRSAIFHFESAVEKKPTFEVAHLDLARMYIEAGNHRKAEENFQKLLCMKPVVEE  
TMQDIHFYYGRFQEFQKSDVNAIHYLKAIEQASLTRDKSINSLKKLVLRKLRRKALDLESLSLLGFVYKLE  
GNMNEALEYYERALRLAADFENSVRQGP

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FIGURE 329

AGCCGGTGCGCCGCAGACTAGGGCGCCTCGGGCCAGGGAGCGCGGAGGAGCCATGGCCACCGCTAACGGGGCCGT  
GGAAAACGGGCAGCCGGACGGGAAGCCGCCGGCCCTGCCGCGCCCCATCCGCAACCTGGAGGTCAAGTTCACCAA  
GATATTTATCAACAATGAATGGCACGAATCCAAGAGTGGGAAAAAGTTTGCTACATGTAACCCCTCAACTCGGGA  
GCAATATGTGAAGTGAAGAAGGAGATAAGCCCCGACGTGGACAAGGCTGTGGAGGCTGCACAGGTTGCCTTCCA  
GAGGGGCTCGCCATGGCGCCGGCTGGATGCCCTGAGTCGTGGGCGGCTGCTGCACCAGCTGGCTGACCTGGTGGGA  
GAGGGACCGCGCCACCTTGGCCGCCCTGGAGACGATGGATACAGGGAAGCCATTTCTTCATGCTTTTTTCATCGA  
CCTGGAGGGCTGTATTAGAACCCTCAGATACTTTGCAGGGTGGGCAGACAAAATCCAGGGCAAGACCATCCCCAC  
AGATGACAACGTCGTATGCTTCACCAGGCATGAGCCATTGGTGTCTGTGGGGCCATCACTCCATGGAACTTCCC  
CCTGCTGATGCTGGTGTGGAAGCTGGCACCCGCCCTCTGCTGTGGGAACACCATGGTCCTGAAGCCTGCGGAGCA  
GACACCTCTCACCGCCCTTTATCTCGGCTCTCTGATCAAAGAGGCCGGGTTCCCTCCAGGAGTGGTGAACATTGT  
GCCAGGATTTCGGGCCCACAGTGGGAGCAGCAATTTCTTCTCACCCCTCAGATCAACAAGATCGCCTTCACCGGCTC  
CACAGAGGTTGGAAAACCTGGTTAAAGAAGCTGCGTCCCGGAGCAATCTGAAGCGGGTGACGCTGGAGCTGGGGGG  
GAAGAACCCCTGCATCGTGTGTGCGGACGCTGACTTGGACTTGGCAGTGGAGTGTGCCCATCAGGGAGTGTCTT  
CAACCAAGGCCAGTGTTCACGGCAGCCTCCAGGGTGTTCGTGGAGGAGCAGGTCTACTCTGAGTTTGTGAGGCG  
GAGCGTGGAGTATGCCAAGAAACGGCCCGTGGGAGACCCCTTCGATGTCAAACAGAACAGGGGCCCTCAGATTGA  
TCAAAGCAGTTCGACAAAATCTTAGAGCTGATCGAGAGTGGGAAGAAGGAAGGGGCCAAGCTGGAATGCGGGGG  
CTCAGCCATGGAAGACAAGGGGCTCTTCATCAAACCCACTGTCTTCTCAGAAGTCACAGACAACATGCGGATTGC  
CAAAGAGGAGATTTTCGGGCCAGTGCAACCAATACTGAAGTTCAAAAGTATCGAAGAAGTGATAAAAGAGCGAA  
TAGCACCGACTATGGACTCACAGCAGCCGTGTTCAAAAAATCTCGACAAAGCCCTGAAGTTGGCTTCTGCCTT  
AGAGTCTGGAACGGTCTGGATCAACTGCTACAACGCCCTCTATGCACAGGCTCCATTTGGTGGCTTTAAAATGTC  
AGGAAATGGCAGAGAACTAGGTGAATACGCTTTGGCCGAATACACAGAAGTGAAAACCTGTCACCATCAAACCTTGG  
CGACAAGAACCCCTGAAGGAAAGGCGGGGCTCCTTCTCAAACATCGGACGGCGGAATGTGGCAGATGAAATGTG  
CTGGAGGAAAAAATGACATTTCTGACCTTCCCGGGACACATTCTTCTGGAGGCTTTACATCTACTGGAGTTGAA  
TGATTGCTGTTTTCTCTCACTCTCCTGTTTATTACACAGACTGGGGATGCCTATAGGTTGTCTGTGAAATCGCA  
GTCTCGCTGGGGAGGGAGCTGTTGGCCATTTCTGTGTTTCCCTTTAAACCAGATCCTGGAGACAGTGAGATACT  
CAGGGCGTTGTTAACAGGGAGTGGTATTTGAAGTGTCCAGCAGTTGCTTGAATGCTTTGCCGAATCTGACTCCA  
GTAAGAATGTGGGAAAACCCCTGTGTGTTCTGCAAGCAGGGCTCTTGACCAGCGGTCTCCTCAGGGTGGACCT  
GCTTACAGAGCAAGCCACGCCTCTTTCCGAGGTGAAGGTGGGACCATTCCTTGGGAAAGGATTCACAGTAAGGT  
TTTTGGTTTTTGTTTTTTGTCTTGTTTTTTAAAAAAGGATTCACAGTGAGAAAGTTTTGGTTAGTGCATAC  
CGTGGAAGGGCGCCAGGGTCTTTGTGGATTGCATGTTGACATTGACCGTGAGATTCCGGCTTCAAACCAATACTGC  
CTTTGGAATATGACAGAATCAATAGCCAGAGAGCTTAGTCAAAGACGATATCACGGTCTACCTTAACCAAGGCA  
CTTTCTTAAGCAGAAAATATTGTTGAGGTTACCTTTGCTGCTAAAGATCCAATCTTCTAACGCCACAACAGCATA  
GCAAATCCTAGGATAATTACCTCCTCATTGACAAATCAGAGCTGTAATCACTTTAACAAATTACGCATTTCT  
ATCACGTTCACTAACAGCTTATGATAAGTCTGTGTAGTCTTCCCTTTCTCCAGTTCGTGTTACCCAATTTAGATTA  
GTAAAGCGTACACAACCTGGAAAGACTGCTGTAATAACACAGCCTTGTATTTTTTAAGTCCTATTTTGATATTAAT  
TTCTGATTAGTTAGTAAATAACACCTGGATTCTATGGAGGACCTCGGTCTTCATCCAAGTGGCCTGAGTATTTCA  
CTGGCAGGTTGTGAATTTTTCTTTTCTTTTGGGAATCCAAATGATGATGTGCAATTTTCATGTTTTAACTTGGG  
AAACTGAAAGTGTCCCATATAGCTTCAAAAACAAAAACAAATGTGTTATCCGACGGATACTTTTATGGTTACTA  
ACTAGTACTTTCCCTAATTGGGAAAGTAGTGCTTAAGTTTGCAAATTAAGTTGGGGAGGGCAATAATAAAATGAGG  
GCCCCGTAACAGAACCAGTGTGTGTATAACGAAAACCATGTATAAAATGGGCCTATCACCCCTTGTCAGAGATATAA  
ATTACCACATTTGGCTTCCCTTCATCAGCTAACACTTATCACTTATACTACCAATAACTTGTTAAATCAGGATTT  
GGCTTCATACACTGAATTTTCAGTATTTTATCTCAAGTAGATATAGACACTAACCTTGATAGTGATACGTTAGAG  
GGTTCCTATTCTTCCATTGTACGATAATGCTTTAATATGAAATGCTACATTATTTATAATTGGTAGAGTTATTG  
TATCTTTTTATAGTTGTAAGTACACAGAGGTGGTATATTTAAACTTCTGTAATATACTGTATTTAGAAATGGAAA  
TATATATAGTGTTAGGTTTCACTTCTTTTAAAGGTTTACCCCTGTGGTGTGGTTTTAAAAATCTATAGGCCTGGGAA  
TTCCGATCCTAGCTGCAGATCGCATCCCAATGCGAGAATGATAAAATAAAATTGGATATTTGAGA

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**FIGURE 330**

MATANGAVENGQPDGKPPALPRPIRNLEVKFTKIFINNEWHESKSGKKFATCNPSTREQICEVEEGDKPDVDKAV  
EAAQVAFQRGSPWRRLDALSRGRLHQLADLVERDRATLAALETMDTGKPFHLHAFFIDLEGCIRTLRYFAGWADK  
IQGKTIPTDDNVVCFTRHEPIGVCGAITPWNFLLMLVWKLAPALCCGNTMVLKPAEQTPLTALYLGSLIKEAGF  
PPGVVNIVPFGPTVGAAISSHPQINKIAFTGSTEVGKLVKEAASRSNLKRVTELGKKNPCIVCADADLDLAVE  
CAHQGVFFNQGCCTAASRVFVEEQVYSEFVRRSVEYAKKRPVGDPFDVKTEQGPQIDQKQFDKILELIESGKKE  
GAKLECGGSAMEDKGLFIKPTVFSEVTDNMRIAKEEIFGPVQPILKFKSIEEVIKRANSTDYGLTAAVFTKNLDK  
ALKLASALESGETVWINCYNALYAQAPFGGFKMSGNGRELGEYALAEYTEVKTVTIKLGDKNP

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**FIGURE 331**

TCGCACTTGGCTTCAAAGCTGGCTCTTGGAATTGAGCGGAGAGCGACGCGGTTGTTGTAGCTGCCGCTGCGGCC  
GCCGCGGAATAATAAGCCGGGATCTACCATACCCATTGACTAACTATGGAAGATTATACCAAAATAGAGAAAATT  
GGAGAAGGTACCTATGGAGTTGTGTATAAGGGTAGACACAAAACCTACAGGTCAAGTGGTAGCCATGAAAAAATC  
AGACTAGAAAAGTGAAGAGGAAGGGGTTCTAGTACTGCAATTCGGGAAATTTCTCTATTAAAGGAACTTCGTCAT  
CCAAATATAGTCAGTCTTCAGGATGTGCTTATGCAGGATTCCAGGTTATATCTCATCTTTGAGTTTCTTTCCATG  
GATCTGAAGAAATACTTGGATTCTATCCCTCCTGGTCAGTACATGGATTCTTCACTTGTTAAGAGTTATTTATAC  
CAAATCCTACAGGGGATTGTGTTTTGTCACTCTAGAAGAGTTCTTCACAGAGACTTAAACCTCAAAATCTCTTG  
ATTGATGACAAAGGAACAATTAACTGGCTGATTTTGGCCTTGCCAGAGCTTTTGAATACCTATCAGAGTATAT  
ACACATGAGGTAGTAACACTCTGGTACAGATCTCCAGAAGTATTGCTGGGGTCAGCTCGTTACTCAACTCCAGTT  
GACATTTGGAGTATAGGCACCATATTTGCTGAAGTACTGCAACTAAGAAACCACTTTTCCATGGGGATTGAGAAAT  
GATCAACTCTTCAGGATTTTCAGAGCTTTGGGCACTCCCAATAATGAAGTGTGGCCAGAAGTGAATCTTTACAG  
GACTATAAGAATACATTTCCCAAATGGAACCAGGAAGCCTAGCATCCCATGTCAAAAACCTGGATGAAAAATGGC  
TTGGATTTGCTCTCGAAAATGTTAATCTATGATCCAGCCAAACGAATTTCTGGCAAAATGGCACTGAATCATCCA  
TATTTTAATGATTTGGACAATCAGATTAAGAAGATGTAGCTTTCTGACAAAAAGTTCCATATGTTATGTCAACA  
GATAGTTGTGTTTTTATTGTTAACTCTTGCTATTTTTGTCTTATATATATTTCTTTGTTATCAAACTTCAGCTG  
TACTTCGTCTTCTAATTTCAAAAATATAACTTAAAAATGTAAATATTCTATATGAATTTAAATATAATTCTGTAA  
ATGTGTGTAGGTCTCACTGTAACAACTATTTGTTACTATAATAAACTATAATATTGATGTCAGGAATCAGGAAA  
AAATTTGAGTTGGCTTAAATCATCTCAGTCCTTATGGCAGTTTTATTTTCTGTAGTTGGAACCTACTAAAAATTA  
GGAAAATGCTAAGTTCAAGTTTCGTAATGCTTTGAAGTATTTTTATGCTCTGAATGTTTAAATGTTCTCATCAGT  
TTCTTGCCATGTTGTTAACTATACAACCTGGCTAAAGATGAATATTTTTCTACTGGTATTTTAAATTTTGACCTA  
AATGTTTAAGCATTCCGAATGAGAAAACCTATACAGATTTGAGAAATGATGCTAAATTTATAGGAGTTTTAGTAA  
CTTAAAAAGCTAACATGAGAGCATGCCAAAATTTGCTAAGTCTTACAAAGATCAAGGGCTGTCCGCAACAGGGAA  
GAACAGTTTTGAAAATTTATGAACTATCTTATTTTTAGGTAGGTTTTGAAAGCTTTTTGTCTAAGTGAATTTCTTA  
TGCCTTGGTCAGAGTAATAACTGAAGGAGGTGCTTATCTTGGCTTTCGAGTCTGAGTTTAAACTACACATTTTG  
ACATAGTGTATTATTAGCAGCCATCTAAAAAGGCTCTAATGTATATTTAACTAAAATTACTAGCTTTGGGAATTAA  
ACTGTTTAACAAATTAGGA

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**FIGURE 332**

ALGFKAGSWKLSGERRGCCSCRCGRRGIISRDLPYPLTNYGRLYQNREKIGEGTYGVVYKGRHKTGQVVAMKKI  
RLESEEEGVPSTAIRESILLKELRHPNIVSLQDVLMQDSRLYLIFEFLSMDLKKYLD SIPPGQYMDSSLVKSYLE  
QILQGIVFCHSRRVLHRDLKPQNLLIDDKGTIKLADFG LARAFGIP IRVYTHEVVT LWYRSPEVLLGSARYSTPV  
DIWSIGTIFAE LATKKPLFHGDSEIDQLFRIFRALGTPNNEVWPEVESLQDYKNTFPKWKPGSLASHVKNLDENG  
LDLLSKMLIYDPAKRISGKMALNHPYFNDLDNQIKKM

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**FIGURE 333**

GGGGGGGGGGGGCACTTGGCTTCAAAGCTGGCTCTTGGAATTGAGCGGAGAGCGACGCGGTTGTTGTAGCTGCC  
GCTGCGGCCGCGCGGAATAATAAGCCGGGATCTACCATACCCATTGACTAACTATGGAAGATTATACCAAATA  
GAGAAAATTGGAGAAGGTACCTATGGAGTTGTGTATAAGGGTAGACACAAAACCTACAGGTCAAGTGGTAGCCATG  
AAAAAATCAGACTAGAAAGTGAAGAGGAAGGGGTTCTAGTACTGCAATTCGGGAAATTTCTCTATTAAAGGAA  
CTTCGTCATCCAAATATAGTCAGTCTTCAGGATGTGCTTATGCAGGATTCCAGGTTATATCTCATCTTTGAGTTT  
CTTTCCATGGATCTGAAGAAATACTTGGATTCTATCCCTCCTGGTCAGTACATGGATTCTTCAGTTGTTAAGAGT  
TATTTATACCAAATCCTACAGGGGATTGTGTTTTGTCACTCTAGAAGAGTTCTTCACAGAGACTTAAACCTCAA  
AATCTCTTGATTGATGACAAAGGAACAATTAACTGGCTGATTTTGGCCTTGCCAGAGCTTTTGAATACCTATC  
AGAGTATATACACATGAGGTAGTAACACTCTGGTACAGATCTCCAGAAGTATTGCTGGGGTCAGCTCGTTACTCA  
ACTCCAGTTGACATTTGGAGTATAGGCACCATATTTGCTGAAGTACTAGCAACTAAGAAACCACTTTCCATGGGGAT  
TCAGAAATTGATCAACTCTTCAGGATTTTCAGAGCTTTGGGCACTCCCAATAATGAAGTGTGGCCAGAAGTGGAA  
TCTTTACAGGACTATAAGAATACATTTCCCAAATGGAAACCAGGAAGCCTAGCATCCCATGTCAAAAACCTGGAT  
GAAAATGGCTTGGATTTGCTCTCGAAAATGTTAATCTATGATCCAGCCAAACGAATTTCTGGCAAAATGGCACTG  
AATCATCCATATTTTAATGATTTGGACAATCAGATTAAGAAGATGTAGCTTTCTGACAAAAAGTTTCCATATGTT  
ATGTCAACAGATAGTTGTGTTTTTATTGTTAACTCTTGTCTATTTTTGTCTTATATATATTTCTTTGTTATCAA  
CTTCAGCTGTACTTCGTCTTCTAATTTCAAAAATATAACTTAAAAATGTAAATATTCTATATGAATTTAAATATA  
ATTCTGTAAATGTGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 334**

MEDYTKIEKIGEGTYGVVYKGRHKTGQVVAMKKIRLESEEEGVPSTAIRESLLKELRHPNIVSLQDVLMQDSR  
LYLIFEFLSMDLKKYLD SIPP GQYMDSSLVKVVT LWYRSPEVLLGSARYSTPVDIWSIGTIFAELATKKPLFHGD  
SEIDQLFRIFRALGTPNNEVWPEVESLQDYKNTFPKWKPGSLASHVKNLDENGLDLLSKMLIYDPAKRISGKMAL  
NHPYFNDLDNQIKKM

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FIGURE 335

GGCGAATGGAGCAGGGGCGCGCAGATAATTAAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGT  
GGTGGCTCATGCCTATAATCCCAGCACTTTTGGAGGCTGAGGCGGGCAGATCACTTGAGATCAGGAGTTTCGAGAC  
CAGCCTGGTGCCTTGGCATCTCCCAATGGGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCTC  
GCTGCAGGTGGCAAGCTCTGGGAACATGAAGGTCTTGCAGGAGCCCACCTGCGTCTCCGACTACATGAGCATCTC  
TACTTGCGAGTGGAAGATGAATGGTCCCACTTGCAGCACCGAGCTCCGCCTGTTGTACCAGCTGGTTTTTCT  
GCTCTCCGAAGCCACACGTGTATCCCTGAGAACAACGAGGCGGGGTGCGTGTGCCACCTGCTCATGGATGA  
CGTGGTCAGTGCGGATAACTATACACTGGACCTGTGGGCTGGGCAGCAGCTGCTGTGGAAGGGCTCCTTCAAGCC  
CAGCGAGCATGTGAAACCCAGGGCCCCAGGAAACCTGACAGTTACACCAATGTCTCCGACACTCTGCTGCTGAC  
CTGGAGCAACCCGTATCCCCCTGACAATTACCTGTATAATCATCTCACCTATGCAGTCAACATTTGGAGTGAAAA  
CGACCCGGCAGATTTTCAAGTCTATAACGTGACCTACCTAGAACCCCTCCCTCCGCATCGCAGCCAGCACCCCTGAA  
GTCTGGGATTTCTACAGGGCACGGGTGAGGGCCTGGGCTCAGTGCTATAACACCACCTGGAGTGAGTGAGGCC  
CAGCACCAGTGGCACAACCTCTACAGGGAGCCCTTCGAGCAGCACCTCCTGCTGGGCGTCAGCGTTTCTGTCAT  
TGTCATCCTGGCCGTCTGCTGTTGTGCTATGTGAGCATCACCAAGATTAAGAAAGAATGGTGGGATCAGATTCC  
CAACCCAGCCCGCAGCCGCTCTGCTGCTATAATAATCCAGGATGCTCAGGGGTACAGTGAGGAGAAGCGGTCCCG  
AGGCCAGGAACCCAGCAAGTGCCACACTGGAAGAATTGCTTACCAAGCTCTTGCCCTGTTTTCTGGAGCACAA  
CATGAAAAGGGATGAAGATCTCACAAGGCTGCCAAAGAGATGCCCTTCCAGGGCTCTGGAATAATCAGCATGGTG  
CCAGTGAGATCAGCAAGACAGTCTCTGGCCAGAGAGCATCAGCGTGGTGCGATGTGTGGAGTTGTTTGAGGC  
CCCGGTGGAGTGTGAGGAGGAGGAGGAGGTAGAGGAAGAAAAAGGGAGCTTCTGTGCATCGCCTGAGAGCAGCAG  
GGATGACTTCCAGGAGGGAAGGGAGGGCATTGTGGCCCGGCTAACAGAGAGCCTGTTCTGGACCTGCTCGGAGA  
GGAGAATGGGGGCTTTTGCCAGCAGGACATGGGGGAGTCATGCCCTTCTCCACCTTCGGGAAGTACGAGTGCTCA  
CATGCCCTGGGATGAGTTCCCAAGTGACGGGCCCCAAGGAGGCACCTCCCTGGGGCAAGGAGCAGCCTCTCCACCT  
GGAGCCAAGTCTCTGCCAGCCCGACCCAGAGTCCAGACAACCTGACTTGACAGAGACGCCCTCTGTCATCGC  
AGGCAACCCCTGCTTACCGCAGCTTACGCAACTCCCTGAGCCAGTCAACCGTGTCCAGAGAGCTGGGTCCAGACCC  
ACTGCTGGCCAGACACCTGGAGGAAGTAGAACCCGAGATGCCCTGTGTCCCCAGCTCTCTGAGCCAACCACTGT  
GCCCCAACCTGAGCCAGAAACCTGGGAGCAGATCCTCCGCCGAAATGTCTCCAGCATGGGGCAGCTGCAGCCCC  
CGTCTCGGCCCCCACCAGTGGCTATCAGGAGTTTGTACATGCGGTGGAGCAGGGTGGCACCCAGGCCAGTGCGGT  
GGTGGGCTTGGGTCCCCCAGGAGAGGCTGGTTACAAGGCCTTCTCAAGCCTGCTTGCCAGCAGTGCTGTGTCCCC  
AGAGAAATGTGGGTTTGGGGCTAGCAGTGGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATTCTGGCTGCCC  
TGGGGACCCTGCCCCAGTCCCTGTCCCTTGTTCACCTTTGACTGGACAGGGAGCCACCTCGCAGTCCGCAGAG  
CTCACATCTCCCAAGCAGCTCCCCAGAGCACCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCC  
CCCACCTTCCCCAGGAGCAGGCCACAGACCCCTTGTGGACAGCCTGGGCAGTGGCATTTGCTACTCAGCCCTTAC  
CTGCCACCTGTGCGGCCACCTGAAACAGTGTATGGCCAGGAGGATGGTGGCCAGACCCCTGTATGGCCAGTCC  
TTGCTGTGGCTGCTGCTGTGTGGAGACAGGTCTCGCCCCCTACAACCCCTGAGGGCCCCAGACCCCTCTCCAGG  
TGGGGTTCCACTGGAGGCCAGTCTGTGTCCGGCCTCCCTGGCACCCCTCGGGCATCTCAGAGAAGAGTAAATCCTC  
ATCATCCTTCCATCCTGCCCCCTGGCAATGCTCAGAGCTCAAGCCAGACCCCCAAAATCGTGAACCTTTGTCTCCGT  
GGGACCCACATACATGAGGGTCTCTTAGGTGCATGTCTCTTGTGCTGAGTCTGCAGATGAGGACTAGGGCTTA  
TCCATGCCTGGGAAATGCCACCTCCTGGAAGGCAGCCAGGCTGGCAGATTTCCAAAAGACTTGAAGAACCATGGT  
ATGAAGGTGATTGGCCCCACTGACGTTGGCCTAACACTGGGCTGCAGAGACTGGACCCCCGCCAGCATTGGGGCTG  
GGCTCGCCACATCCCATGAGAGTAGAGGGCACTGGGTGCGCGTGGCCACGGCAGGCCCTGCAGGAAAACCTGAG  
GCCCTTGGGCACCTCGACTTGTGAACGAGTTGTTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTGTCCCTGTT  
GTAAGTGGCCAAAGGCATGTTTTGCCACACAGATCATGGCCACGTGGAGGCCACCTGCCTCTGTCTACTGAAC  
TAGAAGCCGAGCCTAGAACTAACACAGCCATCAAGGGAATGACTTGGGCGGCCTTGGGAAATCGATGAGAAATT  
GAACTTCAGGGAGGGTGGTCATTGCCTAGAGGTGCTCATTATTAACAGAGCTTCCCTAGGTTGATGCTGGAGG  
CAGATCCCGGCTGTCAAGGGGTGTTCAAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGCTATGACTAAAGCA  
GGGACAATTGCTGCCAAACACCCATGCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCCAGAAT  
AAATATGCTCAGCCACCCCTGTGGGCCGGGCAATCCAGACAGCAGGCATAAGGCACCAAGTTACCCTGCATGTTGGC  
CCAGACCTCAGGTGCTAGGGAAGGCGGGAACCTTGGGTTAGTAATGCTCGTCTGTGTGTTTTAGTTTCATCACC  
TGTTATCTGTGTTTGTGAGGAGAGTGGAACAGAAGGGGTGGAGTTTTGTATAATAAAGTTTTCTTTGTCTC



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**FIGURE 336**

MGWLCSGLLFPVSCVLVLLQVASSGNMKVLQEPTCVSDYMSISTCEWKMNNGPTNCSTELRLLYQLVFLLEAHTCI  
PENNGGAGCVCHLLMDDVVSADNYTLDLWAGQQLLWKGSKPSEHVKPRAPGNLTVHTNVSDTLLLTWSNPYP  
NYLYNHLTYAVNIWSENDPADFRIYNVTYPEPSLRIAASTLKSGISYRVRVRAWAQCYNNTWSEWSPSTKWHNSY  
REPFEQHLLLGVSVCIVILAVCLLCYVSITKIKKEWWDQIPNPARSRLVAII IQDAQGSQWEKRSRGQEPKCP  
HWKNCLTKLLPCFLEHNMKRDEDPHKAAKEMPFQSGSGSAWCPVEISKTVLWPESISVVRVVELFEAPVECEEEE  
EVEEEKSGSFCASPESSRDDFQEGREGIVARLTESLFLDLLGEENGFCQQDMGESCLLPFSGSTSAHMPWDEFPS  
AGPKEAPPWGKEQPLHLEPSPPASPTQSPDNLTCTETPLVIAGNPAYRSFSNSLSQSPCPRELGPDP LLARHLEE  
VEPEMPCVPQLSEPTTVPQPEPETWEQILRRNVLQHGAAPVSAPTSGYQEFVHAVEQGGTQASAVVGLGPPGE  
AGYKAFSSLLASSAVSPEKCGFGASSGEEGYKPFQDLIPGCPGDPAPVPVPLFTFGLDREPPRSPQSSHLPS  
EHLGLEPGEKVEDMPKPLPQEQATDPLVDSLGSIVSALTCHLCGHLKQCHGQEDGGQTPVMASPCCGCCCGD  
RSSPPTTPLRAPDPSPGGVPLEASLCPASLAPSGISEKSKSSSFHPAPGNAQSSSQTPKIVNFVSVGPTYMRVS

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**FIGURE 337**

ATTCGAGTGCTCCGGAGAACAGACCCGCGCCCCGCGCTCCGCGAGCCTCCCGAGAGCCGTCCCTTCGTCCGGCCCC  
TGGAGCATTGCGTTTGTGCGCCGGTGTGCGAGTGCGAGGATGGCGCCGCGGGTGTAGCGGCTCTCTGCGCAGGCCG  
AGTGGGCCCAGAGAAGCGAGGAACTCCCCAGATCGCCGACACGTCTCGTCTCCTGTCCCAATTCAGGGCTTGGTG  
AGGTGACTCGCGGTGCGGGGTGACTCGCCGGCAGGACACTGCCTGGAACGCCTGGAGCGCCTCCCACTGCAGACG  
TCTGTCCGCCTCCAGCCGCTCTCCTCTGACGGGTCTGCCTCAGTTGGCGGAATGGCGGCCACGGGAGCCAATGC  
AGAGAAAGCTGAAAGTCACAATGATTGCCCCGTCAGACTTTTAAATCCAAACATAGCAAAAATGAAAGAAGATAT  
TCTCTATCATTTCATCTCACCCTAGCAGACACAATTTCCAGCCTTGTTTGGAGATGTGAAGTTTGTGTGTGT  
TGGTGGAAGCCCCCTCCCGGATGAAAGCCTTCATCAGGTGCGTTGGTGCAGAGCTGGGCCTTGACTGCCCAGGTAG  
AGACTATCCCAACATCTGTGCGGGAAGTACCGCTATGCCATGTATAAAGTAGGACCGGTGCTGTCTGTCTCAGTCA  
TGGTATGGGCATTCTTCTATCTCAATCATGTTGCATGAGCTCATAAAGCTGCTGTACTATGCCCCGTGCTCCAA  
CGTCACTATCATCCGCATTGGCACTTCTGGTGGGATAGGTCTGGAGCCCGGCACTGTGGTCATAACAGAGCAGGC  
AGTGGATACCTGCTTCAAGGCAGAGTTTGAGCAGATTGTCCTGGGGAAGCGGGTCATCCGGAAAACGGACCTTAA  
CAAGAAGCTGGTGCAGGAGCTGTTGCTGTGTTCTGCAGAGCTGAGCGAGTTTACCACAGTGGTGGGGAACACCAT  
GTGCACCTTGGACTTCTATGAAGGGCAAGGCCGTCTGGATGGGGCTCTCTGCTCCTACACGGAGAAGGACAAGCA  
GGCGTATCTGGAGGCAGCCTATGCAGCCGGCGTCCGCAATATCGAGATGGAGTCCTCGGTGTTTGGCGCCATGTG  
CAGCGCCTGCGGCCTCCAAGCGGCCGTGGTGTGTGTACCCCTCCTGAACCGCCTGGAAGGGGACCAGATCAGCAG  
CCCTCGCAATGTGCTCAGCGAGTACCAGCAGAGGCCGCGAGCGGTGGTGAAGTACTTCATCAAGAAGAACTGAG  
CAAGGCCTGAGCGCTGCCCTGCACCTCCGCAGACCTGCTGTGATGACTTGCCATTAAAAGCATTGTCCAAACCC

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**FIGURE 338**

MAATGANAEKAESHNDPVRLLNPNIAKMKEDILYHFNLTTSRHNFPAFPGDVKFVVCVGGSPSRMKAFIRCVGAE  
LGLDCPGRDYPNICAGTDYAMYKVGPVLSVSHGMGIPSIISIMLHELKLLYYARCSNVTIIRIGTSGGIGLEPG  
TVVITEQAVDTCFKAEFEQIVLGKRVIRKTDLNKKLVQELLLCSAELSEFTTVVGNTMCTLDFYEGQGRLDGALC  
SYTEKDKQAYLEAAYAAGVRNIEMESSVFAAMCSACGLQAAVVCVTLNRLEGDQISSPRNVLSEYQQRQRLVS  
YFIKKKLSKA

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**FIGURE 339A**

CTGACGACCATGAGGTTGCCCTATGAGAGCTGGTGGATACTCTTGGGCTGGAGCAACCCCTCCTGTGGGGATTGACCCAGG  
AGGCTTCAGTGGACCTCAAGAACACTGGCAGAGAGGAATTCCTCACAGCCTTCCTGCAGAACTATCAGCTGGCCT  
ACAGCAAGGCCTACCCCGCCTCCTTATCTCCAGTCTGTTCAGAGAGCCCGCTTCAGTCTCCATCCTCAGCCAGG  
CAGACAACACCTCAAAGAAGGTACAGTGAGGCCCCGGGAGTCGGTTCATGGTCAACATCAGTGCCAAGGCTGAGA  
TGATAGGCAGCAAGATCTTCCAGCATGCGGTGGTGATCCATTCTGACTATGCCATCTCTGTGCAGGCACTAAATG  
CCAAGCCTGACACAGCGGAGCTGACACTGCTGCGGCCCATCCAGGCCCTAGGCACCGAGTATTTGTGCTCACAC  
CCCCCGGCACCTCAGCCAGGAATGTCAAGGAGTTTGCCGTGGTGGCCGGTGCCGCAGGTGCCTCGGTTCAGTGTC  
CGCTGAAGGGGTTCAGTGACATTCAATGGCAAGTTCTATCCAGCAGGCGATGTCTTAAGAGTGACTCTACAGCCCT  
ACAATGTGGCCCAGCTACAGAGCTCAGTGGATCTCTCGGGGTCAAAGGTCACAGCTAGTAGCCCCGTGGCTGTCC  
TCTCTGGCCACAGCTGTGCGCAGAAACATACGACCTGCAACCATGTGGTTGAGCAGCTGCTACCCACGTCTGCCT  
GGGGCACCCACTATGTAGTACCCACGCTGGCCTCCCAATCTCGCTATGATTTGGCCTTCGTTGTGGCCAGCCAGG  
CCACAAAGCTGACCTACAACCATGGGGGTATCACTGGCTCCCGTGGGCTCCAGGCAGGTGATGTGGTAGAGTTTG  
AGGTCCGGCCATCCTGGCCACTCTACCTGTCTGCAAATGTGGGCATCCAGGTCTCTGTTGTTTGGCACAGGTGCCA  
TAAGGAATGAAGTGACTTATGACCCCTACCTGGTCTGTATCCAGATGTGGCGGCCCTACTGCCACAGCCTATGTGG  
TCAAGAGTGTACCAGGCTGTGAGGGCGTGGCCCTGGTAGTGGCACAGACGAAGGCTATCAGCGGGCTGACCATAG  
ATGGGCATGCAGTGGGGGCCAAGCTCACCTGGGAGGCTGTGCCAGGCAGTGAGTTCTCGTATGCTGAAGTGGAGC  
TCGGCACAGCTGACATGATCCACACGGCCGAGGCCACCACCAACTTGGGACTGCTCACCTTCGGGCTGGCCAAGG  
CTATAGGCTACGCAACAGCTGCTGATTGCGGCCGAGCTGTACTGTCCCCAGTGGAGCCCTCCTGCGAAGGCATGC  
AGTGCAGCGCCGGCAGCGCTGCCAGGTGGTAGGCGGGAAGGCCGGGTGTGTGGCGGAGTCCACCGCTGTCTGCC  
GCGCCAGGGCGACCCCATACACCACCTTCGACGGCCGTGCTACGACATGATGGGCACCTGTTCTGTACACGA  
TGGTGGAGCTGTGCAGCGAGGACGACACCCTGCCCGCCTTCAGCGTGGAGGCCAAGAACGAGCACCCGGGGCAGCC  
GCCGCGTCTCCTACGTGGGCCTCGTCACTGTGCGCGCTACAGCCACTCTGTGTCTGCTGACCCGCGGTGAAGTTG  
GCTTCGTCTGTTGACAACAGCGCTCGCGCCTGCCAGTCTCCCTGAGTGAGGGTTCGCTGCGTGTGTACCAGA  
GCGGACACGGGCCGTGGTGGAGCTGGTCTTTGGGCTGGTGGTCACTTATGACTGGGACTGCCAGCTGGCACTCA  
GCCTGCCTGCACGCTTCCAAGACCAGGTGTGCGGGCTGTGTGGCAACTATAATGGTGACCCAGCAGACGACTTCC  
TCACGCCTGACGGGGCTCTGGCTCCTGACGCTGTGGAGTTGCGAAGTAGCTGGAAGCTGGATGATGGGGACTACC  
TGTGTGAGGATGGCTGCCAGAACAACCTGTCCCGCCTGCACCCAGGCCAGGCCCAACACTATGAGGGCGACCGAC  
TCTGTGGCATGCTGACCAAGCTCGATGGCCCCCTTCGCTGTCTGCCATGACACCCTGGACCCCAAGGCCCTTCTGG  
AGCAGTGTGTATATGACCTGTGTGTGGTTCGGTGGGGAGCGGCTCAGCCTGTGCCGTGGCCTCAGCGCCTATGCCC  
AGGCCTGTCTGGAGCTTGGCATCTCGGTGGGGACTGGAGATCACCAGCCAACCTGCCCCCTGTCTGCCCCTGCCA  
ACAGCCGCTATGAGCTCTGCGGCCCTGCTTGCCCCGACCTCCTGCAACGGGGCTGCGGCGCCGTCCAACCTGCTCCG  
GGCGCCCCCTGCGTGGAGGGCTGCGTGTGCCCTCCAGGCTTCGTGGCCAGCGGCGGCGCCTGCGTGGCGGCCCTCGT  
CGTGTGGCTGCACCTTCCAGGGTCTCCAGCTCGCTCCGGGCCAGGAAGTGTGGGCGGACGAGTTGTGCCAAAGGC  
GCTGCACCTGCAACGGCGCCACCCATCAGGTCACTGCGCGACAAGCAGAGCTGCCGGCGGGTGAGCGCTGCA  
GCGTCCAGAACGGCCTCCTGGGCTGCTACCCCGATCGCTTCGGGACCTGCCAGGGGTCCGGGGACCCACACTATG  
TGAGCTTCGACGGCCGGCGCTTCGACTTCATGGGCACCTGCACGTACCTGCTGGTGGCTCATGCGGCCAGAAGC  
CAGCGCTGCCTGCCTTCCGGGTGCTGGTGGAAAACGAGCATCGGGGCAGCCAGACTGTGAGCTACACGCGCGCCG  
TGCGGGTGGAGGCCCGCGGGGTGAAGGTGGCCGTGCGCCGGGAGTACCCCGGGCAAGTGTGGTGGATGACGTCC  
TTCAGTATCTGCCCTTCCAAGCAGCAGATGGGCAGGTGCAGGTGTTCCGACAGGGCAGGGATGCCGTGCTGCGCA  
CGGACTTTGGCCTGACTGTCACTTATGACTGGAATGCACGAGTGACTGCCAAGGTGCCAGCAGCTATGCTGAGG  
CCCTGTGTGGACTCTGTGGAACTTCAACGGGGACCCAGCTGATGACCTGGCTCTGCGGGGTGGGGGTCAAGCTG  
CCAATGCACTGGCCTTTGGGAACAGCTGGCAAGAAGAGACGAGGCCCGGCTGTGGAGCAACTGAACCGGTGACT  
GTCCCAAGCTGGACTCCCTGGTGGCCCAGCAGCTGCAGAGCAAGAATGAGTGTGGAATCCTTGCCGACCCCAAGG  
GGCCCTTCCGGGAGTGCCATAGCAAGCTGGACCCCCAGGGTGCCGTGCGCGACTGTGTCTATGACCGCTGCCTGC  
TGCCAGGCCAGTCTGGGCCACTGTGTGACGCACTGGCCACCTATGCTGCTGCATGCCAGGCTGCTGGAGCCACAG  
TGCACCCCTGGAGGAGTGAAGAACTTTGCCCACTGAGCTGCCACCCACAGCCACTATGAGGCGTGTTCCTACG  
GCTGCCCGCTGTCTGTGGAGACCTCCAGTGCCCGGGGGCTGTGGCTCAGAATGCCATGAGGGCTGCGTGTGCG  
ATGAGGGCTTTGCGCTCAGTGGTGTGCTGCTGCCCTGGCCTCCTGTGGCTGCGTACACCAGGGCACCTACC

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**FIGURE 339B**

ACCCACCAGGCCAGACCTTCTACCCTGGCCCCGGATGTGATTCCCTTTGCCACTGCCAGGAGGGCGGCCTGGTGT  
CCTGTGAGTCCCTCCAGCTGCGGACCGCACGAGGCCTGCCAGCCATCCGGTGGCAGCTTGGGCTGTGTGGCCGTGG  
GCTCTAGCACCTGCCAGGCGTCAGGAGACCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGGGCA  
CCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTGCATCGGTTTGCCGTCCTGCAGGAGAACC  
TGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACCTTACCCTGCGGCTGG  
AGCAGAGACAGTGAAGGTCACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGTGCTGGCCAACGGCCAGATCC  
GTGCCTCCCAGCATGGTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGTACT  
ATGTGCGGGTCACCGTCCCCGAACTACTACCAGCAGATGTGTGGCCTGTGTGGGAACTACAACGGCGACCCCCA  
AGGATGACTTCCAGAAGCCCAATGGCTCACAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGGTGG  
TGCCCCGACTCTCCCTGCCTGCGGCCACCCCTTGCCCGCCGGGGAGCGAGGACTGTATCCCCAGCCACAAGTGTCT  
CTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGTCTCT  
CCTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGAACC  
TGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCGGCTGGAGGCCACGTGGAGCCCTGGA  
GGACTGAAACTTTCTGTCCCATGGAGTGCCCTCCGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCCTGG  
GCTGCTCAGCTCTCAGTGCCCCCTCCACAGTGCCAGGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCTTCC  
TCTACAATGGCCAAGCCTGCGTGCCCATCCAGCAATGCGGCTGCTACCACAATGGTGTCTACTATGAGCCGGAGC  
AGACAGTCCCTCATTGACAACGTGTGCGCAGCAGTGACGTGCCATGCGGGTAAAGGCATGGTGTGCCAGGAACACA  
GCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCCACAAAGACCCGTGCCACGGCG  
TGACATGCCGGCCACAGGAGACATGCAAGGAGCAGGGTGGCCAGGGCGTGTGCCTGCCCAACTATGAGGCCACGT  
GCTGGCTGTGGGGCGACCCACACTACCACTCCTTCGATGGCCGGAAGTTGACTTCCAGGGCACCTGTAACATATG  
TGCTGGCAACAACCTGGCTGCCCCGGGGGTGAGCAGCCAGGGCCTGACACCCCTTACCCTCACCACCAAGAACCAGA  
ACCGGGGCAACCCTGCTGTGTCTCTACGTGAGAGTCTGTCACCGTGGCTGCCCTCGGCACCAACATCTCCATCCACA  
AGGACGAGATCGGCAAAGTCCGGGTGAACGGTGTGCTCACAGCCTTGCCCTGCTCTGTGGCCGACGGGCGGATTT  
CAGTGACCCAGGGTGCAATCGAAGGCACTGCTGGTGGCTGACTTTGGACTGCAAGTCAGCTATGACTGGAACCTGGC  
GGGTAGACGTGACGCTGCCCAGCAGCTATCATGGCGCAGTGTGCGGGCTCTGCGGTAAACATGGACCGCAACCCCA  
ACAATGACCAGGTCTTCCCTAATGGCACACTGGCTCCCTCCATACCCATCTGGGGCGGCAGCTGGCGAGCCCCAG  
GCTGGGACCCACTGTGTGTGGGACGAATGTGCGGGGTCTGCCCAACGTGCCCTGAGGACCGGTGGAGCAGTACG  
AGGGCCCTGGCTTCTGCGGACCCCTGGCCCCCGGCACAGGGGGCCCTTTACCACCTGCCATGCTCATGTGCCAC  
CTGAGAGCTTCTTCAAGGGCTGTGTTCTGGACGTCTGCATGGGTGGTGGGGACCGTGACATTCTTTGCAAGGCTC  
TGGCTTCCATATGTGGCCGCTGCCAGGCTGCTGGGGTTGTATCGAAGACTGGCGGGCACAGGTTGGCTGTGAGA  
TCACCTGCCCAGAAAACAGCCACTATGAGGTCTGTGGCCACCCTGCCCGGCCAGCTGTCCGTCCCCTGCACCCC  
TTACGACGCCAGCCGTATGTGAGGGCCCTGTGTGGAGGGCTGCCAGTGCGACGCGGGTTTCGTGTTAAGTGCTG  
ACCGCTGTGTTCCCCTCAACAACGGCTGCGGCTGCTGGGCCAATGGCACCTACCACGAGGCGGGCAGTGAGTTTT  
GGGCTGATGGCACCTGCTCCAGTGGTGTGCTGCGGGCCTGGGGGTGGCTCGCTGGTCTGCACACCTGCCAGCT  
GTGGGCTGGGTGAAGTGTGTGGCTCCTGCCATCCGGCCAGCACGGCTGCCAGCCCGTCAGCACAGCTGAGTGCC  
AGGCGTGGGGTGACCCCCATTACGTCACTCTGGATGGGCACCGATTCAATTTCCAAGGCACCTGCGAGTACCTGC  
TGAGTGACCCCTGCCACGGACCAACCTTGGGGGCTGAGAACTTCACTGTCACTGTAGCCAATGAGCACCAGGGGCA  
GCCAGGCTGTGAGCTACACCCGCAAGTGTACCCCTGCAAATCTACAACCACAGCCTGACACTGAGTGCCCGCTGGC  
CCCGGAAGCTACAGGTGGACGGCGTGTTCGTCACTCTGCCCTTCCAGCTGGACTCGCTCCTGCACGCACACCTGA  
GCGGCGCCGACGTGGTGGTGACCACAACCTCAGGGCTCTCGCTGGCTTTTCGACGGGGACAGCTTCGTGCGCCTGC  
GCGTGCCGGCGGGCTACGCGGGCTCTCTCTGTGGCTTATGCGGGAACATAACAGGACCCCGCAGACGACCTGA  
AGGCGGTGGGCGGGAAGCCCGCCGGATGGCAGGTGGGCGGCGCCAGGGCTGCGGGGAATGTGTGTCCAAGCCAT  
GCCCGTCCCGTGCACCCAGAGCAGCAAGAGTCTTCGGCGGGCCGGACGCTGCGGCGTGATCTCCGCCACCG  
ACGGCCCGCTGGCGCCCTGCCACGGCCTTGIGCCGCGCCGCGCAGTACTTCCAGGGCTGCTTGTGTGGACGCTGCC  
AAGTTCAGGGCCATCCTGGAGGCCCTGTCTCTGAGTGGCCACCTACGTGGCAGCCTGTGAGGCCGTGGGGCCC  
AGCTCCGCGAGTGGAGGCGGGCCGACTTCTGTCCCTTCCAGTGGCCTGCCACAGCCACTACGAGCTCTGCGGTG  
ACTCCTGTCTGGAGCTGCCCCAGCCTGTGCGGACCCGAGGGCTGTGAGTGGCCTGCCGTGAAGGCTGTGTCT  
GCGATGCTGGCTTCGTGCTCAGTGGTGACACGTGTGTACCTGTGGGCCAGTGTGGCTGCCTCCACGATGACCGCT

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## FIGURE 339C

ACTACCCACTGGGCCAGACCTTCTACCCTGGCCCTGGGTGTGATTCCCTTTGCCGCTGCCGGGAGGGCGGTGAGG  
TGTCCTGTGAGCCCTCCAGCTGCGGCCCGCATGAGACCTGCCGGCCATCCGGTGGCAGCTTGGGCTGCGTGGCCG  
TGGGCTCTACCACCTGCCAGGCGTCGGGAGATCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGG  
GCACCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTACATCGGTTTGCCGCTCTGCAGGAGA  
ACGTGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACCTTCACCCTGCGGC  
TGGAGCAGAGACAGTGAAGGTACGGTGAACGGTGTGGACATGAAGCTGCCCCTGGTGTGGCCAACGGCCAGA  
TCCGTGCCTCCCAGCATGGTTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGT  
ACTATGTGCGGGTCACCGTCCCTGGAACTACTACCAGCTGATGTGTGGCCTGTGTGGGAACACAACGGCGACC  
CCAAGGATGACTTCCAGAAGCCCCAATGGCTCGCAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGG  
TGGTGGCCGACTCTCCCTGCCTGCGGCCGCCACCTGCCCGCCGGGGAGCGAGGGCTGTATCCCCAGCGAGGAGT  
GTCTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGT  
CCTCCTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGA  
ACCTGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCGGCTGGAGGCCACGTGGAGCCCT  
GGAGGAATGAACTTTCTGTCCCATGGAATGCCCTCAGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCC  
TGGGCTGCTCGGCTCTCAGTGCCCTCTGCAGTGCCAGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCT  
TCCTCTACAACGGCCAAGCCTGCGTGCCCATCCAGCAATGTGGCTGCTACCACAATGGTGCCTACTATGAGCCGG  
AGCAGACAGTCCCTCATTGACAACGTGTCGGCAGCAGTGACGTGCCATGCGGGTAAAGTCGTGGTGTGCCAGGAAC  
ACAGCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCACCAAGACCCGTGCCACG  
GCGTGACATGCCGGCCACAGGAGACATGCAAGGAGCAGGGTGGCCAGGGTGTGTGCCTGCCCAACTATGAGGCCA  
CGTGCTGGCTGTGGGGCGACCCACACTACCACTCCTTCGATGGCCGGAAGTTTGACTTCCAGGGCACCTGTAACT  
ATGTGCTGGCAACAACCTGGCTGCCCGGGGGTCAGCACCCAGGGCCTGACACCCTTACCCTGACCACCAAGAACC  
AGAACC GGCGCAACCCTGCTGTATCCTACGTGAGAGTCGTCACCGTGGCTGCCCTCGGCACCAACATCTCCATCC  
ACAAGGACGAGATCGGCAAAGTCCGGGTGAACGGTGTGCTCACAGCCTTGCTGTCTCCGTGGCCGACGGGCGGA  
TTTCAGTGGCCCAGGGTGATCGAAGGCACTGCTGGTGGCTGACTTTGGACTGCAAGTCAGCTATGACTGGAAC  
GGCGGGTAGACGTGACGCTCCCCAGCAGCTATCATGGCGCAGTGTGCGGGCTCTGCGGTAACATGGACCGCAACC  
CCAACAATGACCAGGTCTTCCCTAATGGCACACTGGCTCCCTCCATACCCATCTGGGGCGGCAGCTGGCGAGCCC  
CAGGCTGGGACCCACTGTGTTGGGACGAATGTGCGGGGTCTGCCCAACGTGCCCTGAGGACCGGTTGGAGCAGT  
ACGAGGGCCCTGGCTTCTGCGGACCCCTGGCCCCCGGCACAGGGGGCCCTTTCACCACCTGCCATGCTCATGTGC  
CACCTGAGAGCTTCTTCAAGGGCTGTGTTCTGGACGTCTGCATGGGTGGTGGGGACCATGACATTCTTTGCAAGG  
CTCTGGCTTCTACGTGGCCGCTGCCAGGCCGTGGGGTTGTCTATCGAAGACTGGCGGGCACAGGTTGGCTGTG  
AGATCACCTGCCAGAAAACAGCCACTATGAGGTCTGTGGCCACCCTGCCCGGCCAGCTGTCCGTCCCCTGCAC  
CCCTTACGACGCCAGCCGTATGTGAGGGCCCCGTGTGTGGAGGGCTGCCAGTGCGACGCGGGTTTCGTGTTAAGTG  
CTGACCGCTGTGTTCCCTCAACAACGGCTGCGGCTGCTGGGCCAATGGCACCTACCACGAGGCGGGCAGTGAGT  
TTTGGGCTGATGGCACCTGTCTCCAGTGGTGTGCTGCGGGCCTGGGGGTGGCTCGCTGGTCTGCACACCTGCCA  
GCTGTGGGCTGGGTGAAGTGTGTGGCCTCCTGCCATCCGGCCAGCACGGCTGCCAGCCCGTCAGCACAGCTGAGT  
GCCAGGCGTGGGGTGACCCCCATTACGTCACTCTGGATGGGCACCGATTTCGATTTCCAAGGCACCTGCGAGTACC  
TGCTGAGTGCACCCTGCCACGGACCACCCTTGGGGGTGAGAACTTCACTGTCACTGTAGCCAATGAGCACCGGG  
GCAGCCAGGCTGTGAGCTACACCCGCAGTGTACCCTGCAAATCTACAACCACAGCCTGACACTGAGTGCCCGCT  
GGCCCCGGAAGCTACAGGTGGACGGCGTGTTCGTCACTCTGCCCTTCCAGCTGGACTCGCTCCTGCACGCACACC  
TGAGCGGCGCCGACGTGGTGGTGACCACAACCTCAGGGCTCTCGCTGGCTTTTCGACGGGGACAGCTTCGTGCGCC  
TGC CGTGCCGGCGGCTACGCGGGCTCTCTCTGTGGCTTATGCGGGAACATAACCAGGACCCCGCAGACGACC  
TGAAGGCGGTGGGCGGGAAGCCCGCGGATGGCAGGTGGGCGGCGCCAGGGCTGCGGGGAATGTGTGTCCAAGC  
CATGCCCCTGCGCGTGACCCCCAGAGCAGCAAGAGTCCTTCCGGCGCCCCGGACGCTGCGGCGTGATCTCCGCCA  
CCGACGGCCCCGTGGCGCCCTGCCACGGCCTTGTGCCGCCCGCGCAGTACTTCCAGGGCTGCTTGTGTGGACGCT  
GCCAAGTTTCAGGGCCATCCTGGAGGCCTCTGTCTGAGTGGCCACCTACGTGGCAGCCTGTGAGGCCGTGGGG  
CCCAGCTCCGCGAGTGGAGGCGGCCGGACTTCTGTCCCTTCCAGTGCCCTGCCACAGCCACTACGAGCTCTGCG  
GTGACTCTCTGCTGGGAGCTGCCCGAGCCTGTGCGCACCCGAGGGCTGTGAGTGGCCTGCCGTGAAGGCTGTG  
TCTGCGATGCTGGCTTCGTGCTCAGTGGTGACACGTGTGTACCTGTGGGCCAGTGTGGCTGCCTCCACGATGACC

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**FIGURE 339D**

GCTACTACCCACTGGGCCAGACCTTCTACCCTGGCCCTGGGTGTGATTCCCTTTGCCGCTGCCGGGAGGGCGGTG  
AGGTGTCCTGTGAGCCCTCCAGCTGCGGCCCGCATGAGACCTGCCGGCCATCCGGTGGCAGCTTGGGCTGCGTGG  
CCGTGGGCTCTACCACCTGCCAGGCGTCGGGAGATCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCA  
TGGGCACCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTACATCGGTTTGCCGTCCTGCAGG  
AGAACGTGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACCTTACCCTGC  
GGCTGGAGCAGAGACAGTGAAGGTACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGTGGCCAACGGCC  
AGATCCGTGCCTCCCAGCATGGTTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTG  
TGTACTATGTGCGGGTCACCGTCCCTGGAACTACTACCAGCTGATGTGTGGCCTGTGTGGGAACTACAACGGCG  
ACCCCAAGGATGACTTCCAGAAGCCCAATGGCTCGCAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGG  
AGGTGGTGGCCGACTCTCCCTGCCTGCCGCCGCCACCTGCCCGCCGGGAGCGAGGGCTGTATCCCCAGCGAGG  
AGTGTCTCTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCAC  
TGTCTCTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTG  
GGAACCTGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCGGCTGGAGGCCACGTGGAGC  
CCTGGAGGAATGAAACTTTCTGTCCCATGGAATGCCCTCAGAACAGTCACTACGAGCTCTGTGCGGACACCTGCT  
CCCTGGGCTGCTCGGCTCTCAGTGCCCTCTGCAGTGCCAGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCG  
GCTTCTCTACAACGGCCAAGCCTGCGTGCCCATCCAGCAATGTGGCTGTACCACAATGGTGTCTACTATGAGC  
CGGAGCAGACAGTCTCATTGACAACGTGTCGGCAGCAGTGACGTGCCATGTGGGTAAAGTCGTGGTGTGCCAGG  
AACACAGCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCAACAAAGACCCGTGCC  
ACGGCGTGACATGCCGGCCACAGGAGACATGCAAGGAGCAGGGTGGCCAGGGTGTGTGCCTGCCCAACTATGAGG  
CCACGTGCTGGCTGTGGGGCGACCCACACTACCCTCCTTCGATGGCCGGAAGTTTGACTTCCAGGGCACCTGTA  
ACTATGTGCTGGCAACAACCTGGCTGCCCGGGGTGTCAGCACCCAGGGCCTGACACCCCTTACCCTGACCCCAAGA  
ACCAGAACCAGGGGCAACCCTGCTGTATCCTACGTGAGAGTCGTACCCGTGGCTGCCCTCGGCACCAACATCTCCA  
TCCACAAGGACGAGATCGGCAAAGTCCGGGTGAACGGTGTGCTCACAGCCTTGCCCTGTCTCCGTGGCCGACGGGC  
GGATTTTCACTGGCCAGGGTGCATCGAAGGCACTGCTGGTGGCTGACTTTGGACTGCAAGTCAGCTATGACTGGA  
ACTGGCGGGTAGACGTGACGCTCCCCAGCAGCTATCATGGCGCAGTGTGCGGGCTCTGCGGTAACATGGACCGCA  
ACCCCAACAATGACCAGGTCTTCCCTAATGGCACACTGGCTCCCTCCATACCCATCTGGGGCGGCAGCTGGCGAG  
CCCCAGGCTGGGACCCACTGTGTTGGGACGAATGTGCGGGGTCTGCCCAACGTGCCCTGAGGACCGGTTGGAGC  
AGTACGAGGGGCTGGCTTCTGCGGACCCCTGGCATCTGGCACAGGGGGCCCTTACCACCTGCCATGCTCATG  
TGCCACCTGAGAGCTTCTTCAAGGGCTGTGTTCTGGACGTCTGCATGGGTGGTGGGGACCATGACATTCTTTGCA  
AGGCTCTGGCTTCTTACGTGGCCGCTGCCAGGCCGCTGGGGTGTGTCATCGAAGACTGGCGGGCACAGGTTGGCT  
GTGAGATCACCTGCCCAGAAAACAGCCACTATGAGGTCTGTGGCCACCCTGCCCGGCCAGCTGTCCGTCCCCTG  
CACCCCTTACGACGCCAGCCGTATGTGAGGGCCCTGTGTGGAGGGCTGCCAGTGCGACGCGGGTTTCTGTGTTAA  
GTGCTGACCGCTGTGTTCCCTCAACAACGGCTGCGGCTGCTGGGCCAATGGCACCTACCACGAGGCGGGCAGTG  
AGTTTTGGGCTGATGGCACCTGCTCCCAGTGGTGTGCTGCGGGCCTGGGGGTGGCTCGCTGGTCTGCACACCTG  
CCAGCTGTGGGCTGGGTGAAGTGTGTGGCCTCCTGCCATCCGGCCAGCACAGCTGCCAGCCCGTCAGCACAGCTG  
AGTGCCAGGCGTGGGGTGACCCCCATTACGTCACTCTGGATGGGCACCGATTTCGATTTCCAAGGCACCTGCGAGT  
ACCTGCTGAGTGCACCTGCCACGGACCCCTTGGGGGCTGAGAACTTCACTGTCACTGTAGCCAATGAGCACC  
GGGGCAGCCAGGCTGTGAGTACACCCGAGTGTACCCCTGCAAACTACAACCACAGCCTGACACTGAGTGCCC  
GCTGGCCCCGGAAGCTACAGGTGACGGCGTGTTCGTGGCTCTGCCTTTCAGCTGGACTCGCTCCTGCACGCAC  
ACCTGAGCGGCGCCGACGTGGTGGTGACCACAACCTCAGGGCTCTCGCTGGCTTTCGATGGGGACAGCTTCGTGC  
GCCTGCGCGTGCCGGCGGCGTACGCGGCCTCTCTGTGGCTTATGCGGGAACTACAACCAGGACCCCGCAGACG  
ACCTGAAGGCTGTGGGCGGGAAGCCGCTGGATGGCAGGTGGGCGGGGCCAGGGCTGCGGGGAATGTGTGTCCA  
AGCCATGCCCGTGCCTGTACCCAGAGCAGCAGGAGTCTTCGGCGGGCCGGACGCCTGCGGCGTGATCTCCG  
CCACCGACGGCCGCTGGCACCTGCCACGGCCTTGTGCCGCCCGCGCAGTACTTCCAGGGCTGCTTGCTGGACG  
CCTGCCAAGTTACAGGGCCATCCTGGAGGCCTCTGTCTGCAGTGGCTACCTACGTGGCAGCCTGTGAGGCCGCTG  
GGGCCAGCTCGGCGAGTGGAGGCGGCGGACTTCTGTCCCTTGCAGTGCCCTGCCACAGCCACTATGAGCTCT  
GCGGTGACTCCTGCCCTGTGAGCTGCCCGAGCCTCTCAGCACCCGAGGGCTGTGAGTCGGCCTGCCGTGAAGGCT  
GTGTCTGCGATGCTGGCTTCGTACTCAGTGGTGACACCTGCGTACCCGTGGGCCAGTGTGGCTGCCTCCATGATG

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**FIGURE 339E**

GCCGCTACTACCCACTGGGCGAGGTCTTCTACCCGGGCCCCTGAGTGTGAGCGACGCTGTGAGTGTGGGCCAGGTG  
GCCATGTCACCTGCCAGGAGGGGCGCAGCCTGTGGGGCCCCATGAGGAGTGCCGGTTAGAGGATGGTGTCCAGGCCT  
GTCA TGCCACAGGCTGTGGCCGCTGCCTGGCCAACGGGGGCATCCACTACATCACCCCTTGATGGCCGTGTCTACG  
ACCTGCATGGCTCCTGCTCCTATGTCTTGGCCCCAAGTCTGCCACCCAAAGCCTGGGGACGAGGACTTTTCCATCG  
TGCTTGAGAAGAATGCAGCTGGACATCTCCAACGCCTCCTGGTTACTGTGGCTGGCCAGGTTGTGAGCCTAGCTC  
AGGGGCGAGCAGGTACCGTGGACGGCGAGGCTGTGGCCCTGCCTGTGGCTGTGGGCCGCGTGC GG GTGACCGCCG  
AGGGCCGAAACATGGTTCTGCAGACGACCAAGGGGCTGCGGCTTCTCTTTGATGGCGATGCCCACCTCCTCATGT  
CCATCCCCAGCCCCCTTCGTTGGACGGCTCTGTGGCCTCTGTGGGAACCTCAATGGCAACTGGAGTGACGACTTTG  
TCCTGCCCCAATGGCTCAGCAGCGTCCAGTGTGGAGACCTTCGGGGCTGCATGGCGGGTGCCCGGCTCCTCCAAGG  
GCTGTGGCGAGGGCTGCGGGCCCCAAGGCTGCCCAGTGTGCTTGGCAGAGGAGACTGCACCCTATGAGAGCAACG  
AGGCCTGCGGGCAGCTCCGGAACCCCCAGGGCCCCCTTCGCGACCTGCCAGGCGGTGCTGAGTCCCTCTGAGTACT  
TCCGCCAATGCGTATACGACCTGTGCGCGCAAAAGGGTGACAAAGCCTTCCTGTGCCGCGAGCCTGGCAGCCTACA  
CGGCGGCCTGT CAGGCAGCTGGCGTGGCCGTGAAGCCCTGGAGGACAGACAGCTTCTGCCCGCTCCATTGCCCCG  
CCCACAGCCACTACTCCATCTGCACTCGCACCTGCCAGGGATCCTGTGCGGCTCTCTCCGGCCTCACGGGCTGCA  
CCACCCGCTGTTTTGAGGGCTGTGAGTGCGACGACCGCTTCCTGCTTTCCAGGGTGTCTGCATCCCTGTCCAAG  
ATTGTGGCTGCACCCATAATGGCCGATACTTGCCGGTAAACTCCTCCCTGCTGACCTCAGACTGCAGCGAGCGCT  
GTTCTGTTCCTCAAGCTCTGGCCTGACATGCCAGGCCGCTGGCTGCCCACCAGGCCGTGTATGTGAGGTCAAGG  
CTGAAGCCCCGGAAC TGTGGGCCACCCGTGGTCTCTGTGTCTGTCTGTGGGTGCCAACCTCACCACCTTTGATG  
GGGCCCCGTGGTGCCACCACCTCTCCTGGTGTCTATGAGCTCTCTTCCCGCTGCCCAGGACTACAGAATACCATCC  
CCTGGTACCGTGTAGTTGCCGAAGTCCAGATCTGCCATGGCAAAAACGGAGGCTGTGGGCCAGGTCCACATCTTCT  
TCCAGGATGGGATGGTGACGTTGACTCCAAACAAGGGTGTGTGGGTGAATGGTCTCCGAGTGATCTCCAGCTG  
AGAAGTTAGCATCTGTGTCCGTGAGTCGTACACCTGATGGCTCCCTGCTAGTCCGCCAGAAGGCAGGGGTCCAGG  
TGTGGCTTGGAGCCAATGGGAAGGTGGCTGTGATTGT CAGCAATGACCATGCTGGGAAACTGTGTGGGGCCTGTG  
GAAACTTTGACGGGGACCAGACCAATGATTGGCATGACTCCCAGGAGAAGCCAGCGATGGAGAAATGGAGAGCGC  
AGGACTTCTCCCCATGTTATGGCTGATCAGTCATCCACCAGGAACGAAGATTTCTGAAGAAGACCTGGTCCCTC  
TGGAGGTTGCGGTGGCTGAAGGATGCATCATGTGCTCCTACCCCTGCTCTACCGCTTTTCTGGGTACAGAGGCCA  
AATGTGAGAGCATTGAATAAATACTTAAGCT



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**FIGURE 340**

MGALWSWWILWAGATLLWGLTQEASVDLKNTGREEFLTAFLQNYQLAYSKAYPRLLISSLSSESPASVSILSQADN  
TSKKVTVRPGESVMVNISAKAEMIGSKIFQHAVVIHSDYAIISVQALNAKPDTAELTLRLPIQALGTEYFVLTPPG  
TSARNVKEFAVVAGAAGASVSVTLKGSVTFNGKFYPAGDVLRVTLQPYNVAQLQSSVDLSGSKVTASSPVAVLSG  
HSCAQKHTTCNHVVEQLLPTSAGWTHYVVP TLASQSRYDLAFVVASQATKLTYNHGGITGSRGLQAGDVVEFEVR  
PSWPLYLSANVGIQVLLFGTGAIRNEVTYDPYLVLPDVAAYCPAYVVKSVPGCEGVALVVAQTKAISGLTIDGH  
AVGAKLTWEAVPGSEFSYAEVELGTADMIHTAEATTNLGLLTFGLAKAIGYATAADCGRTVLSFVEPSCEGMQCA  
AGQRCQVVGKAGCVAESTAVCRAQGDPHYTTFDGRRYDMMGTCSYTMVELCSEDDTLPAFSVEAKNEHRGSRRV  
SYVGLVTVRAYSHSVSLTRGEVGFVLVDNQSRSLPVSLSEGRRLRVYQSGPRAVVELVFGLVVTYDWDQCQLALSPL  
ARFQDQVCGLCGNNGDPADDFLTDPD GALAPDAVEFASSWKLDG DYLCEDGCQNNCPACTPGQAQHYEGDRLCG  
MLTKLDGPF FAVCHDTLDP RPFFLEQCVDLCVVGGERLSLCRGLSAYAQAACLELGISVGDWRSPANCP LSCPANSR  
YELCGPACPTSCNGAAAPSNCSGRPCVEGCVCLPGFVASGGACVPASSCGCTFQGLQLAPGQEVWADELQORRCT  
CNGATHQVTCRDKQSCPAGERCSVQNGLLGCYPDRFGTCQSGSDPHYVSFDGRRFDFMGTCTYLLVGS CGQNAAL  
PAFRVLVENEHRGSQTVSYTRAVRVEARGVKVAVRREYPGQVLVDDVLQYLPFQAADGQVQVFRQGRDAVVRTDF  
GLTVTYDWNARVTAKVPSSYAEALCGLCGNFNGDPADDLALRGGGQAANALAFGNSWQEETRPGCGATEPGDCPK  
LDSLVAQQQLQSKNECGILADPKGPFRECHSKLDPQGAVRDCVYDRCLLPQSGPLCDALATYAAACQAAGATVHP  
WRSEELCPLSCPPHSHYEACSYGCPLSCGDLVPVPGGCGSECHEGCVCEGFALSGESCLPLASCGCVHQTYHPP  
GQTFYPGPGCDLCHCQEGGLVSCSESSCGPHEACQPSGGSGLCVAVGSSTCQASGDPHYTTFDGRRFDFMGTCTV  
YVLAQTCGTRPGLHRFAVLQENVAWNGRVS VTRVITVQVANFTLRLEQRQWKVTVNGVDMKLPVVLANGQIRAS  
QHGSDDVIETDFGLRVAYDLVYYVRVTVPGNYYQMCGLCGNYNGDPKDDFQKPNQSQAGNANEF GNSWEEVVPD  
SPCLPPTPCPPGSEDCIPSHKCPPELEKKYQKEEFCGLLSSTGPLSSCHKLVD PQGPLKDCIFDLCLGGGNLSI  
LCSNIHAYVSACQAAGGHVEPWRTETFCPMECPNPNSHYELCADTCSLGCSALSAPPQCQDGAEGCQCD SGFLYN  
GQACVPIQQCGCYHNGVYYEPEQTVLIDNCRQOCTCHAGKGMVCQEHSCKPGQVCQPSGGILSCVT KDPC HGVTC  
RPQETCKEQGGQGVCLPNYEATCWLWGDPHYHSFDGRKFDFQGT CNYVLATTGCPGVSTQGLTPFTVT TKNQNRG  
NPAVS YVRVTVAAALGTNIS IHKDEIGKVRVNGVLTALPVSVADGRISVTQGASKALLVADFGLOVSYDWNWRVD  
VTLPSSYHGAVCGLCGNMDRNPNNNDQVFPNGTLAPSIPIWGGSWRAPGWDPLCWDECRGSCPTCPEDRLEQYEGP  
GFCGPLAPGTGGPFTTCHAHVPPESEFFKGCVL DVC MGGGDRDILCKALASYVAACQAAGV VIEDWRAQVGCEITC  
PENSHYEVCGPPCPASCPSAPLTT PAVCEGPCVEGCQCDAGFVLSADRC

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**FIGURE 341**

AAAGGGGCAAGAGCTGAGCGGAACACCGGCCCCGCCGTCGCGGCAGCTGCTTCACCCCTCTCTCTGCAGCCATGGG  
GCTCCCTCGTGGACCTCTCGCGTCTCTCCTCCTTCTCCAGGTTTGCTGGCTGCAGTGCGCGGCCCTCCGAGCCGTG  
CCGGGCGGTCTTCAGGGAGGCTGAAGTGACCTTGAGGCGGGAGGCGGAGCAGGAGCCCGGCCAGGCGCTGGG  
GAAAGTATTTCATGGGCTGCCCTGGGCAAGAGCCAGCTCTGTTTAGCACTGATAATGATGACTTCACTGTGCGGAA  
TGGCGAGACAGTCCAGGAAAGAAGGTCAGTGAAGGAAAGGAATCCATTGAAGATCTTCCCATCCAAACGTATCTT  
ACGAAGACACAAGAGAGATTGGGTGGTTGCTCCAATATCTGTCCCTGAAAATGGCAAGGGTCCCTTCCCCCAGAG  
ACTGAATCAGCTCAAGTCTAATAAAGATAGAGACACCAAGATTTTCTACAGCATCACGGGGCCGGGGGCAGACAG  
CCCCCTGAGGGTGTCTTCGCTGTAGAGAAGGAGACAGGCTGGTTGTTGTTGAATAAGCCACTGGACCGGGAGGA  
GATTGCCAAGTATGAGCTCTTTGGCCACGCTGTGTGTCAGAGAATGGTGCCTCAGTGGAGGACCCCATGAACATCTC  
CATCATCGTGACCGACCAGAATGACCACAAGCCCAAGTTTACCCAGGACACCTTCCGAGGGAGTGTCTTAGAGGG  
AGTCCCTACCAGGTACTTCTGTGATGCAGGTGACAGCCACGGATGAGGATGATGCCATCTACACCTACAATGGGGT  
GGTTGCTTACTCCATCCATAGCCAAGAACCAAGGACCCACACGACCTCATGTTACCATTACCCGGAGCACAGG  
CACCATCAGCGTCATCTCCAGTGGCCTGGACCGGGAAAAAGTCCCTGAGTACACACTGACCATCCAGGCCACAGA  
CATGGATGGGGACGGCTCCACCACCACGGCAGTGGCAGTAGTGGAGATCCTTGATGCCAATGACAATGCTCCCAT  
GTTTGACCCCCAGAAGTACGAGGCCCATGTGCCTGAGAATGCAGTGGGCCATGAGGTGCAGAGGCTGACGGTCAC  
TGATCTGGACGCCCCCAACTCACCAGCGTGGCGTGCCACCTACCTTATCATGGGCGGTGACGACGGGGACCATT  
TACCATCACCACCCACCCTGAGAGCAACCAGGGCATCCTGACAACCAGGAAGGGTTTGATTGAGGCCAAAAA  
CCAGCACACCCTGTACGTTGAAGTGACCAACGAGGCCCTTTTGTGCTGAAGCTCCCAACCTCCACAGCCACCAT  
AGTGGTCCACGTGGAGGATGTGAATGAGGCACCTGTGTTTGTCCACCCTCCAAAGTCGTTGAGGTCCAGGAGGG  
CATCCCCACTGGGGAGCCTGTGTGTGTCTACACTGCAGAAGACCCTGACAAGGAGAATCAAAGATCAGCTACCG  
CATCCTGAGAGACCCAGCAGGGTGGCTAGCCATGGACCCAGACAGTGGGCAGGTACAGCTGTGGGCACCCCTCGA  
CCGTGAGGATGAGCAGTTTGTGAGGAACAACATCTATGAAGTCATGGTCTTGCCATGGACAATGGAAGCCCTCC  
CACCCTGGCACGGGAACCCCTTCTGCTAACACTGATTGATGTCAATGACCATGGCCCAGTCCCTGAGCCCCGTCA  
GATCACCATCTGCAACCAAGCCCTGTGCGCCAGGTGCTGAACATCACGGACAAGGACCTGTCTCCCCACACCTC  
CCCTTTCCAGGCCCAGCTCACAGATGACTCAGACATCTACTGGACGGCAGAGGTCAACGAGGAAGGTGACACAGT  
GGTCTTGTCCCTGAAGAAGTTCTGAAGCAGGATACATATGACGTGCACCTTTCTCTGTCTGACCATGGCAACAA  
AGAGCAGCTGACGGTGATCAGGGCCACTGTGTGCGACTGCCATGGCCATGTCGAAACCTGCCCTGGACCCCTGGAA  
GGGAGGTTTCATCCTCCCTGTGCTGGGGGCTGTCTGGCTCTGCTGTTCCCTCCTGCTGGTGTGCTTTTGTGGT  
GAGAAAAGAAGCGGAAGATCAAGGAGCCCTCTACTCCCAGAAGATGACACCCGTGACAACGTCTTCTACTATGG  
CGAAGAGGGGGGTGGCGAAGAGGACCAGGACTATGACATCACCCAGCTCCACCGAGGTCTGGAGGCCAGGCCGGA  
GGTGGTTCTCCGCAATGACGTGGCACCACCATCATCCCGACACCCATGTACCGTCCCTCGGCCAGCCAACCCAGA  
TGAAATCGGCAACTTTATAATTGAGAACCCTGAAGGCGGCTAACACAGACCCACAGCCCCGCCCTACGACACCCCT  
CTTGGTGTTCGACTATGAGGGCAGCGGCTCCGACGCCGCGTCCCTGAGCTCCCTCACCTCCTCCGCCTCCGACCA  
AGACCAAGATTACGATTATCTGAACGAGTGGGGCAGCCGCTTCAAGAAGCTGGCAGACATGTACGGTGGCGGGGA  
GGACGACTAGCGGGCTGCCTGCAGGGCTGGGGACCAACGTCAGGCCACAGAGCATCTCCAAGGGGTCTCAGTT  
CCCCCTTCAGCTGAGGACTTCGGAGCTTGTGAGGAAGTGGCCGTAGCAACTTGGCGGAGACAGGCTATGAGTCTG  
ACGTTAGAGTGGTTGCTTCCTTAGCCTTTCAGGATGGAGGAATGTGGGCAGTTTGACTTCAGCACTGAAAACCTC  
TCCACCTGGGCCAGGGTGCCTCAGAGGCCAAGTTTCCAGAAGCCTCTTACCTGCCGTAAAATGCTCAACCCCTGT  
GTCCTGGGCCTGGGCCTGCTGTGACTGACCTACAGTGGACTTTCTCTCTGGAATGGAACCTTCTTAGGCCTCCTG  
GTGCAACTTAATTTTTTTTTTAATGCTATCTTCAAAACGTTAGAGAAAAGTTCTTCAAAAGTGCAGCCAGAGCT  
GCTGGGCCCCACTGGCCGTCTGCAATTTCTGGTTTCCAGACCCCCAATGCCTCCCATTCGGATGGATCTCTGCGTTT  
TTATACTGAGTGTGCCTAGGTTGCCCCCTATTTTTTATTTTTCCCTGTTGCGTTGCTATAGATGAAGGGTGAGGAC  
AATCGTGTATATGTACTAGAACTTTTTTATTAAAGAACTTTTTCCAGAAAAAAA

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**FIGURE 342**

MGLPRGPLASLLLLQVCWLQCAASEPCRAVFREAEVTL EAGGAEQEPGQALGKVFMGCPGQEPALFSTDND DFTV  
RNGETVQERRSLKERNPLKIFPSKRILRRHKRDWV VAPISVPENGKGPFQRLNQLKSNKDRDTKIFYSITGPGA  
DSPPEGVFAVEKETGWLLL NKPLDREEIAKYELFGH AVSENGASVEDPMNISIIIVTDQNDHKPKFTQDTFRGSVL  
EGVLPGTSVMQVTATDEDDAIYTYNGVVAYS IHSQEPKDPHDLMFTIHRSTGTISVISSGLDREKVPEYTLTIQA  
TMDGDGSTTTAVAVVEILDANDNAPMFDPQKYE AHVPENAVGHEVQRLTVTDLDAPNSPAWRATY LIMGGDDGD  
HFTITTHPESNQGILTTRKGLDFEAKNQHTLYVE VTNEAPFVLKLPTSTATIVVHVEDVNEAPVFVPPSKVVEVQ  
EGIPTGEPVCVYTAEDPDKENQKISYRILRDPAG WLAMDPDSGQVTAVGTL DREDEQFVRNNIYEVMLAMDNGS  
PPTTGIGTLLLLTLIDVNDHGPVPEPRQITICNQ SPVRQVLNITDKDLSPHTSPFQAQLTDDSDIYWTAEVNEEGD  
TVVLSLKKFLKQDTYDVHLSLSDHGNKEQLTVI RATVCDCHGHVETCPGPWKGGFILPVLGAVLALLFLLL VLLL  
LVRKKRKIKEPLLLPEDDTRDNVFFYYGEEGGGE EDQDYDITQLHRGLEARPEVVL RNDVAPTIIPTPMYRPRPAN  
PDEIGNFIIENLKAANTDPTAPPYDTLLVFDYEGSGSDAASLSLTSASDQDQDYDYLNEWGSRFKKLADMYGG  
GEDD

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**FIGURE 343**

GGCCGGAGGGAGCCGCGCTCGGGGCGGCGGCTGGAGGCAGCGCACCGAGTTCCCGCGAGGATCCATGACCTGAC  
GGGGCCCCGGAGCCGCGCTGCCTCTCGGGTGCTCTGGGTGCGGTGGGGAGGCCAGTGCTCGCAGGCCGGCGGGCGG  
GCCGGAGGGCTGCAGTCTCCCTCGCGGTGAGAGGAAGGCGGAGGAGCGGGAACCGCGGCGGCGCTCGCGCGGCGC  
CTGCGGGGGGAAGGGCAGTTCCGGGCGGGCCGCGCCTCAGCAGGGCGGCGGCTCCAGCGCAGTCTCAGGGCCC  
GGGTGGCGGCGGCGACTGGAGAAATCAAGTTGTGCGGTGCGGTGATGCCCGAGTGAGCGGGGGCCTGGGCCTCTG  
CCCTTAGGAGGCAACTCCCACGCAGGCCGCAAAGGGCTCTCGCGGCCGAGAGGCTTCGTTTCGGTTTCGCGGCGG  
CGGCGGCGTTTGGTGGCTGAGGGGACCCGGGACACCTGAATGCCCCGGCCCCGGCTCCTCCGACGCGATGGGGAA  
GGTGCTATCCAAAATCTTCGGGAACAAGGAAATGCGGATCCTCATGTTGGGCCTGGACGCGGCGCGCAAGACAAC  
AATCCTGTACAAGTTGAAGCTGGGCCAGTCGGTGACCACCATTCCCAGTGTGGGTTTCAACGTGGAGACGGTGAC  
TTACAAAATGTCAAGTTCAACGTATGGGATGTGGGCGGCCAGGACAAGATCCGGCCGCTCTGGCGGCATTACTA  
CACTGGGACCCAAGGTCTCATCTTCGTAGTGGACTGCGCCGACCGCGACCGCATCGATGAGGCTCGCCAGGAGCT  
GCACCGCATTATCAATGACCGGGAGATGAGGGACGCCATAATCCTCATCTTCGCCAACAAGCAGGACCTGCCCGA  
TGCCATGAAACCCACGAGATCCAGGAGAACTGGGCCTGACCCGGATTTCGGGACAGGAACTGGTATGTGCAGCC  
CTCCTGTGCCACCTCAGGGGACGGACTCTATGAGGGGCTCACATGGTTAACCTCTAACTACAAATCTTAATGAGC  
ATTCTCCACCCATCCCCTGGAAGGAGAGAAATCAAAAACCCATTTCATAGGATTATCGCCACCATCACCTCTTTCA  
ATTGCCACTTTCTCTTTTGAATTTGAACTCTGGAGTTACTGTTCTACAGTTTGGCGGGGACGGGGCTTGGGG  
GTTTTCTTTTTGTTTGGTTTCCCTTTCTTTTTCTTTTTTTTTTTTTTTTTTTTTTGGTGGCTTTGCGTTAGGATGGC  
TCTGATCTGACATTTGACATGAACACAAAGTTGCCAAGATGCTCCTTGTGACTTCAGCAGAATGGGAATGGGG  
GAAACACAGCAGTTCTTGGGTAAAGTCCCTTTGTAATAATAGGTTTGGGATTTTTTTTATTTTCGAGAGAATCTTT  
CATTTTCCATATGTATGCTTTTTTCTTTTTTGGCCAGTTTCCTTATCACTTGCTGTAGATGGCTTATTTTGCATT  
CATGCAGACTATGTTGCAAGTCTGTTTCATCTAGTAACTGAAAATTATTGCTTAATCAAAGTCCGTTTGTCTT  
TTATATTTAAGGCCTTCCCCCCCCTTCCTTATGAGTTCTAACTTAGTAATTTCAAATGTGACCTTTTATATCTAA  
GACCAGTATAGTAACTTAGCCACAGTGGCAAATAATGAGTAATATTGTAATATGTTCCAGTTGCACCTCAGTA  
TGTTAAACAGGTAATGTAAGAAGTTCTCTGAAATGTCAGCAAGTAAGTTCTGAAACACATCATGCATGAGTAGGA  
ATAAAC

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**FIGURE 344**

MGKVLISKIFGNKEMRILMLGLDAAGKTTILYKCLKGQSVTTIPTVGFNVETVITYKNVKFNWWDVGGQDKIRPLWR  
HYTGTQGLIFVDCADRDRIDEARQELHRIINDREMRDAIILIFANKQDLPDAMKPHEIQEKLGLTRIRDNRWY  
VQPSCATSGDGLYEGLTWLTSNYKS

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**FIGURE 345**

GCCCGCTGCGGTAAATGGGGCAGAGGCCGGGAGGGGTGGGGGTTCCCCGCGCCGCAGCCATCGAGCAGCTTCGCG  
CCGCCGCCCGTCTGCAGATTGTTCTGGGCCACCTCGGCCGCCCTCGGCCGGGGCTGTCGTAGCTCATCCCACTT  
CAGGGACTATTTCTCTGCCAGTTTCCATCCTCAACAATTCCAGTATACTCTGGATAATAATGTTCTAACCTGG  
AACAGAGAAAATTTTATGAAGAAAATGGGTTTCTAGTAATCAAAAATCTTGTACCTGATGCCGATATTCAACGCT  
TTCGGAATGAGTTTGAAAAATCTGCAGAAAGGAGGTGAAACCATTAGGATTAACAGTAATGAGAGATGTGACCA  
TTTCGAAATCCGAATATGCTCCAAGTGAGAAGATGATCACGAAGGTCCAGGATTTCCAGGAAGATAAGGAGCTCT  
TCAGATACTGCACTCTCCCCGAGATTCTGAAATATGTGGAGTGCTTCACTGGACCTAATATTATGGCCATGCACA  
CAATGTTGATAAACAAACCTCCAGATTCTGGCAAGAAGACGTCCCGTCACCCCCTGCACCAGGACCTGCACTATT  
TCCCCTTTCAGGCCCAGCGATCTCATCGTTTGCGCCTGGACGGCGATGGAGCACATCAGCCGGAACAACGGCTGTC  
TGGTTGTGCTCCCAGGCACACACAAGGGCTCCCTGAAGCCCCACGATTACCCCAAGTGGGAGGGGGGAGTTAACA  
AAATGTTCCACGGGATCCAGGACTACGAGGAAAACAAGGCCCGGGTGCACCTGGTGATGGAGAAGGGCGACACTG  
TTTTCTTCCATCCTTTGCTCATCCACGGATCTGGTCAGAATAAAACCCAGGGATTCCGGAAGGCAATTTCTGCGC  
ATTTGCGCCAGTGCCGATTGCCACTACATTGACGTGAAGGGCACCAGTCAAGAAAACATCGAGAAGGAAGTTGTAG  
GAATAGCACATAAATTCTTTGGAGCTGAAAAATAGCGTGAACCTGAAGGATATTTGGATGTTTCGAGCTCGACTTG  
TGAAAGGAGAAAGAACCAATCTTTTGAAATAGCCATCTGCTATAACTCTTTCAACAGAAAACCAAAACCAACGAA  
ATGTCTAAGGAAAATGTTTTCTTAATGAGATGATGTAACCTTTTCTATCACTTGTTAAAAGCAGAAAACATGTAT  
CAGGTACTTAATTGCATAGAGTTAGTTTTGCAGCACAAATGGTGTTGCTTTAATGGAAAAAAAACAGTAAAAGT  
GAAATATTACTGTTTTAAGGAAAACATAATTTAGGGTGGCAGCCAATAAAGGTGGTTGGTGTCTAATTTAAGTGTT  
AAATCAATTTCTTTCATTAGTTAGCTCTTTACCCAAGAAGAGTGAATGATTGGAGCTTAGGGTATGTTTTGT  
ATCCCCCTTTCTGATAAACCCATTCCCTACCAATTTTATGTCATAAGAGATTTTTTTCCCCCAATCTAGAACAAT  
GTATAATACATTACATCTAGTCAAGGGCATAGGAACGGTGTCATGGAGTCCAAATAAAGTGGATATTCTGCTC  
GG

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**FIGURE 346**

MEQLRAAARLQIVLGHLGRPSAGAVVAHPTSGTISSASFHPQQFQYTLDDNNVLTLEQRKFYEENGFLVIKNLVPD  
ADIQRFRNEFEKICRKEVKPLGLTVMRDVTISKSEYAPSEKMITKVQDFQEDKELFRYCTLPEILKYVECFGTGPN  
IMAMHTMLINKPPDSGKKTSRHPLHQDLHYFFRPSDLIVCAWTAMEHISRNNGLVVLPGTHKGSCLKPHDYPKW  
EGGVNKMFGHIQDYEEKARVHLVMEKGDTVFFHPLLIHGSGQNKTQGRKAISCHFASADCHYIDVKGTSQENI  
EKEVVGIAHKFFGAENSVNLKDIWMFRARLVKGERTNL

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**FIGURE 347**

GGGAAGTGCTGTTGGAGCCGCTGTGGTTGCTGTCCGCGGAGTGGAAGCGCGTGCTTTTGTGTTGTGTCCCTGGCCA  
**TGG**CGCTGCAGCTCTCCCGGGAGCAGGGAATCACCCGTGCGCGGGAGCGCCGAAATCGTGGCCGAGTTCTTCTCAT  
TCGGCATCAACAGCATTTTATATCAGCGTGGCATATATCCATCTGAAACCTTTACTCGAGTGCAGAAATACGGAC  
TCACCTTGCTTGTAACTACTGATCTTGAGCTCATAAAATACCTAAATAATGTGGTGGAACAACCTGAAAGATTGGT  
TATACAAGTGTTTCAGTTCAGAACTGGTTGTAGTTATCTCAAATATTGAAAGTGGTGAGGTCCTGGAAAGATGGC  
AGTTTGATATTGAGTGTGACAAGACTGCAAAAGATGACAGTGCACCCAGAGAAAAGTCTCAGAAAGCTATCCAGG  
ATGAAATCCGTTTCAGTGATCAGACAGATCACAGCTACGGTGACATTTCTGCCACTGTTGGAAGTTTCTTGTTTCAT  
TTGATCTGCTGATTTATACAGACAAAGATTTGGTTGTACCTGAAAAATGGGAAGAGTCGGGACCACAGTTTATTA  
CCAATTCTGAGGAAGTCCGCCTTCGTTCAATTTACTACTACAATCCACAAAGTAAATAGCATGGTGGCCTACAAAA  
TTCCTGTCAATGAC**TGA**GGATGACATGAGGAAAATAATGTAATTGTAATTTTGAAATGTGGTTTTCTGAAATCA  
GGTCATCTATAGTTGATATGTTTTATTTTCATTGGTTAATTTTTTACATGGAGAAAACCAAAATGATACTTACTGAA  
CTGTGTGTAATTGTTCCTTTATTTTTTGGTACCTATTTGACTTACCATGGAGTTAACATCATGAATTTATTGCA  
CATTGTTCAAAGGAACCAGGAGGTTTTTTTTGTCAACATTGTGATGTATATTCCTTTGAAGATAGTAACTGTAGA  
TGGA AAAACTTGTGCTATAAAGCTAGATGCTTTCCTAAATCAGATGTTTTGGTCAAGTAGTTTGACTCAGTATAG  
GTAGGGAGATATTTAAGTATAAAATACAACAAAGGAAGTCTAAATATTCAGAATCTTTGTTAAGGTCCTGAAAGT  
AACTCATAATCTATAACAATGAAATATTGCTGTATAGCTCCTTTTGACCTTCATTTTCATGTATAGTTTTCCCTA  
TTGAATCAGTTTCCAATTATTTGACTTTAATTTATGTAACCTTGAACCTATGAAGCAATGGATATTTGTACTGTTT  
AATGTTCTGTGATACAGAACTCTTAAAAATGTTTTTTCATGTGTTTTATAAAATCAAGTTTTAAGTGAAAGTGAG  
GAAATAAAGTTAAGTTTGTTTTTAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 348**

MALQLSREQGITLRGSAEIVAEFFSFGINSILYQGIYPSETFTRVQKYGLTLLVTTDLELIKYLNNVVEQLKDW  
LYKCSVQKLVVISNIESGEVLERWQFDIECDKTAKDDAPREKSQKAIQDEIRSVIRQITATVTFLPLEVSCS  
FDLLIYTDKDLVVPEKWEEESGPQFITNSEEVRLRSFTTTIHKVNSMVAYKIPVND

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**FIGURE 349**

CGCAGCGGAGGTGAAGGACGTCCTTCCCCAGGAGCCGACTGGCCAATCACAGGCAGGAAGATGAAGGTTCTGTGG  
GCTGCGTTGCTGGTCACATTCTTGGCAGGATGCCAGGCCAAGGTGGAGCAAGCGGTGGAGACAGAGCCGGAGCCC  
GAGCTGCGCCAGCAGACCGAGTGGCAGAGCGGCCAGCGCTGGGAAGTGGCACTGGGTTCGCTTTTGGGATTACCTG  
CGCTGGGTGCAGACACTGTCTGAGCAGGTGCAGGAGGAGCTGCTCAGCTCCCAGGTCACCCAGGAAGTGAAGGCG  
CTGATGGACGAGACCATGAAGGAGTTGAAGGCCTACAAATCGGAAGTGGAGGAACAAGTGAAGGCGGTGGCGGAG  
GAGACGCGGGCACGGCTGTCCAAGGAGCTGCAGGCGGCGCAGGCCCGGCTGGGCGCGGACATGGAGGACGTGTGC  
GGCCGCTGGTGCAGTACCGCGGCGAGGTGCAGGCCATGCTCGGCCAGAGCACCGAGGAGCTGCGGGTGCGCCTC  
GCCTCCACCTGCGCAAGCTGCGTAAGCGGCTCCTCCGCGATGCCGATGACCTGCAGAAGCGCCTGGCAGTGTAC  
CAGGCCGGGGCCCCGCGAGGGCGCCGAGCGCGGCTCAGCGCCATCCGCGAGCGCCTGGGGCCCCCTGGTGAACAG  
GGCCGCGTGCGGGCGCCACTGTGGGCTCCCTGGCCGGCCAGCCGCTACAGGAGCGGGCCAGGCCTGGGGCGAG  
CGGCTGCGCGCGCGGATGGAGGAGATGGGCAGCCGACCCGCGACCGCCTGGACGAGGTGAAGGAGCAGGTGGCG  
GAGGTGCGCGCCAAGCTGGAGGAGCAGGCCAGCAGATACGCTGCAGGCCGAGGCCTTCCAGGCCCGCCTCAAG  
AGCTGGTTTCGAGCCCCCTGGTGAAGACATGCAGCGCCAGTGGGCCGGGCTGGTGGAGAAGGTGCAGGCTGCCGTG  
GGCACCAGCGCCGCCCTGTGCCCAGCGACAATCACTGAACGCCGAAGCCTGCAGCCATGCGACCCACGCCACC  
CCGTGCCTCCTGCCTCCGCGCAGCCTGCAGCGGGAGACCCTGTCCCGCCCCAGCCGTCTCCTGGGGTGGACCC  
TAGTTTAATAAAGATTACCAAGTTTCACGC

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**FIGURE 350**

MKVLWAALLVTFLAGCQAKVEQAVETEPEPELQQTEWQSGQRWELALGRFWDYLRWVQTLSEQVQEELLSSQVT  
QELRALMDETMKELKAYKSELEEQLTPVAEETRARLSKELQAAQARLGADMEDVCGRLVQYRGEVQAMLGQSTEE  
LRVRLASHLRKLRKRLLRDADDLQKRLAVYQAGAREGAERGLSAIRERLGPLVEQGRVRAATVGSLAGQPLQERA  
QAWGERLRARMEEMGSRTDRDLDEVKEQVAEVRKLEEQAQQIRLQAEAFQARLKSWFEPLVEDMQRQWAGLVEK  
VQAAVGTSAAPVPSDNH

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**FIGURE 351**

CGGCAGCCAGCCTATTCTTTGGCCGGGTCGGTGCGAGTGGTCGGCTGGGCAGAGTGCACGCTGCTTGGCGCCGCA  
GGCTGATCCCGCCGTCCACTCCCGGGAGCAGTGATGTTGGGCAACTCTGCGCCGGGGCCTGCGACCCGCGAGGCG  
GGCTCGGCGCTGCTAGCATTGCAGCAGACGGCGCTCCAAGAGGACCAGGAGAATATCAACCCGAAAAAGGCAGCG  
CCCGTCCAACAACCGCGGACCCGGGCGCGCTGGCGGTACTGAAGTCCGGGAACCCGCGGGGTCTAGCGCAGCAG  
CAGAGGCCGAAGACGAGACGGGTTGCACCCCTTAAGGATCTTCCTGTAAATGATGAGCATGTCACCGTTCCTCCT  
TGGAAGCAAACAGTAAACAGCCTGCGTTCACCATTTCATGTGGATGAAGCAGAAAAAGAAGCTCAGAAAGAAGCCA  
GCTGAATCTCAAAAAATAGAGCGTGAAGATGCCCTGGCTTTTAATTCAGCCATTAGTTTACCTGGACCCAGAAAA  
CCATTGGTCCCTCTTGATTATCCAATGGATGGTAGTTTTGAGTCACCACATACTATGGACATGTCAATTGTATTA  
GAAGATGAAAAGCCAGTGAGTGTTAATGAAGTACCAGACTACCATGAGGATATTCACACATACCTTAGGGAAATG  
GAGGTTAAATGTAAACCTAAAGTGGGTTACATGAAGAAACAGCCAGACATCACTAACAGTATGAGAGCTATCCTC  
GTGGACTGGTTAGTTGAAGTAGGAGAAGAATATAAACTACAGAATGAGACCCTGCATTTGGCTGTGAACTACATT  
GATAGGTTCTGTCTTCCATGTCAGTGCTGAGAGGAAAACCTTCAGCTTGTGGGCACTGCTGCTATGCTGTTAGCC  
TCAAAGTTTGAAGAAATATACCCCCAGAAGTAGCAGAGTTTGTGTACATTACAGATGATACCTACACCAAGAAA  
CAAGTTCTGAGAATGGAGCATCTAGTTTTGAAAGTCCTTACTTTTGACTTAGCTGCTCCAACAGTAAATCAGTTT  
CTTACCCAATACTTTCTGCATCAGCAGCCTGCAAAGTGCAGGTTGAAAGTTTAGCAATGTTTTTGGGAGAATTA  
AGTTTGATAGATGCTGACCCATACCTCAAGTATTTGCCATCAGTTATTGCTGGAGCTGCCTTTTCATTTAGCACTC  
TACACAGTCACGGGACAAAGCTGGCCTGAATCATTAATACGAAAGACTGGATATACCCTGGAAAGTCTTAAGCCT  
TGTCTCATGGACCTTCACCAGACCTACCTCAAAGCACCACAGCATGCACAACAGTCAATAAGAGAAAAGTACAAA  
AATTCAAAGTATCATGGTGTCTCTCCTCAACCCACCAGAGACACTAAATCTGTAACAATGAAAGACTGCCTTT  
GTTTTCTAAGATGTAAATCACTCAAAGTATATGGTGTACAGTTTTTAACCTTAGGTTTTAATTTTACAATCATTTT  
TGAATACAGAAGTTGTGGCCAAGTACAAATTATGGTATCTATTACTTTTTAAATGGTTTTAATTTGTATATCTTT  
TGTATATGTATCTGTCTTAGATATTTGGCTAATTTTAAGTGGTTTTGTAAAGTATTAATGATGCCAGCTGTCAG  
GATAATAAATTGATTTGGAAAACCTAAAAAAA

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**FIGURE 352**

MLGNSAPGPATREAGSALLALQQTALQEDQENINPEKAAPVQQPRTRAALAVLKSGNPRGLAQQQRPKTRRVAPL  
KDLPVNDEHVTVPWPKANSKQPAFTIHVDEAEKEAQKKPAESQKIEREDALAFNSAISLPGPRKPLVPLDYPMDG  
SFESPHTMDMSIVLEDEKPVSVNEVPDYHEDIHTYLREMEVKCKPKVGYMKKQPDITNSMRAILVDWLVEVGEEY  
KLQNETLHLAVNYIDRFLSSMSVLRGKLQLVGTAAMLLASKFEEIYPPEVAEFVYITDDTYTKQVLRMEHLVLK  
VLTFDLAAPT VNQFLTQYFLHQQPANCKVESLAMFLGELSLIDADPYLKYLPSVIAGAAFHLALYTVTGQSWPES  
LIRKTGYTLES LKPC LMDLHQTYLKAPQHAQQSIREKYKNSKYHGVSLNPPETLNL

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**FIGURE 353**

CTGTCGCCCTGCACGGTGACCCGCGTGTGCGAGGCCTTCATGGCCAGGATCCGGGTGGAGAGGCGCTGCTGACAC  
CGCCGCCACACCGCCGCCACACCGCCGCTGCCTCAGTCATGCCGAAGCACGAGTTCTCTGTGGACATGACCTGTG  
GAGGCTGTGCTGAAGCTGTCTCTCGGGTCCTCAATAAGCTTGGAGGAGTTAAGTATGACATTGACCTGCCCAACA  
AGAAGGTCTGCATTGAATCTGAGCACAGCATGGACACTCTGCTTGCAACCCTGAAGAAAACAGGAAAGACTGTTT  
CCTACCTTGGCCTTGAGTAGCAGGGGCCTGGTCCCCACAGCCACAGGATGGACCAAAGGGGGCAGGATGCTGAT  
CCTCCCGCTGGCTTCCAGACAGACCTGGGACTTGGCAGTCATGCCGGGTGATCGTGTTCCCTGCGGAGACCCTCAG  
TTGTCCTATTCCTTCCTAGCTTCCCTGCAATAAATCAAGCTGCTTTTGTGG

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**FIGURE 354**

MPKHEFSVDMTCGGCAEAVSRVLNKLGGVKYDIDLPNKKVCIESEHSMDTLLATLKKTGKTVSYLGLE

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**FIGURE 355**

CCGGCTCGCGCCCTCCGGGCCCAGCCTCCCGAGCCTTCGGAGCGGGCGCCGTCCCAGCCCAGCTCCGGGGAAACG  
CGAGCCGCGATGCCTGCGGGGGTGTCTCCCGGGGCCCCGCCGCGGGGACGGGCGTCTGCGGCTGGCGCGACTAGCG  
CTGGTACTCCTGGGCTGGGTCTCCTCGTCTTCTCCACCTCCTCGGCATCCTCCTTCTCCTCCTCGGCGCCGTTT  
CTGGCTTCCGCCGTGTCCGCCAGCCCCGCTGCCGGACCAGTGCCCCGCGCTGTGCGAGTGCTCCGAGGCAGCG  
CGCACAGTCAAGTGCGTTAACC GCAATCTGACCGAGGTGCCACGGACCTGCCCGCCTACGTGCGCAACCTCTTC  
CTTACCGGCAACCAGCTGGCCGTGCTCCCTGCCGGCGCCTTCGCCCGCGGCGCCGCTGGCGGAGCTGGCCGCG  
CTCAACCTCAGCGGCAGCCGCTGGACGAGGTGCGCGCGGGCGCCTTCGAGCATCTGCCAGCCTGCGCCAGCTC  
GACCTCAGCCACAACCCACTGGCCGACCTCAGTCCCTTCGCTTTCTCGGGCAGCAATGCCAGCGTCTCGGCCCCC  
AGTCCCTTGTGGAACCTGATCCTGAACCACATCGTGCCCCCTGAAGATGAGCGGCAGAACCGGAGCTTCGAGGGC  
ATGGTGGTGGCGGCCCTGTCTGGCGGGCCGTGCACTGCAGGGGCTCCGCCGCTTGGAGCTGGCCAGCAACCACTTC  
CTTTACCTGCCGCGGGATGTGCTGGCCCAACTGCCAGCCTCAGGCACCTGGACTTAAGTAATAATTGCTGGTG  
AGCCTGACCTACGTGTCTTCCGCAACCTGACACATCTAGAAAGCCTCCACCTGGAGGACAATGCCCTCAAGGTC  
CTTCACAATGGCACCCCTGGCTGAGTTGCAAGGTCTACCCACATTAGGGTTTTCTGGACAACAATCCCTGGGTC  
TGCGACTGCCACATGGCAGACATGGTGACCTGGCTCAAGGAAACAGAGGTAGTGAGGGCAAAGACCGGCTCACC  
TGTGCATATCCGAAAAAATGAGGAATCGGGTCCTCTTGGAACCTCAACAGTGCTGACCTGGACTGTGACCCGATT  
CTTCCCCCATCCCTGCAAACCTCTTATGTCTTCTGCGGTATTGTTTTAGCCCTGATAGGCGCTATTTCTCCTCG  
GTTTTGTATTTGAACCGCAAGGGGATAAAAAAGTGGATGCATAACATCAGAGATGCCTGCAGGGATCACATGGAA  
GGGTATCATTACAGATATGAAATCAATGCGGACCCCAAGATTAAACAAACCTCAGTTCTAACTCGGATGTCTGAGAA  
ATATTAGAGGACAGACCAAGGACAACCTCTGCATGAGATGTAGACTTAAGCTTTATCCCTACTAGGCTTGCTCCAC  
TTTCATCCTCCACTATAGATAACAACGGACTTTGACTAAAAGCAGTGAAGGGGATTTGCTTCCTTGTTATGTAAAG  
TTTCTCGGTGTGTTCTGTAAATGTAAGACGATGAACAGTTGTGTATAGTGTTTTACCCTCTTCTTTTCTTGAA  
CTCCTCAACACGTATGGAGGGATTTTTCAGGTTTCAGCATGAACATGGGCTTCTTGCTGTCTGTCTCTCTCAG  
TACAGTTCAAGGTGTAGCAAGTGTACCCACACAGATAGCATTCACAAAAGCTGCCTCAACTTTTTCGAGAAAAA  
TACTTTATTCTATAAATATCAGTTTTATTCTCATGTACCTAAGTTGTGGAGAAAATAATTGCATCCTATAAACTGC  
CTGCAGACGTTAGCAGGCTCTTCAAATAAATCCATGGTGACAGGAGCACCTGCATCCAAGAGCATGCTTACAT  
TTTACTGTTCTGCATATTACAAAAATAAATTCGAACTTCATAACTTCTTTGACAAAGTAAATTACTTTTTTGAT  
TGCAGTTTATATGAAAATGTACTGATTTTTTTTTTAATAAACTGCATCGAGATCCAACCGACTGAATTGTTAAAAA  
AAAAAAAAAATAAGATTCTTAAAGAA



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**FIGURE 356**

MPGGCSRGPAAAGDGRRLRLARLALVLLGWVSSSSPTSSASSFSSSAPFLASAVSAQPPLPDQCPALCECSEAARTV  
KCVNRNLTEVPTDLPAYVRNLFLTGNQLAVLPAGAFARRPPLAELAALNLSGSRLDEVRAFAFEHLPSLRQLDLS  
HNPLADLSPFAFSGSNASVSAPSPLVELILNHIVPPEDERQNRSFEGMVVAALLAGRALQGLRRLELASNHFLYL  
PRDVLAQLPSLRHLDLSNNSLVSLTYVSFRNLTHLESLHLEDNALKVLHNGTLAELQGLPHIRVFLDNNPWVDCD  
HMADMVTWLKETEVVQGDRLTCAYPEKMRNRVLELNSADLDCDPILPPSLQTSYVFLGIVLALIGAIFLLVLY  
LNRKGIKKWMHNIRDACRDHMEGYHYRYEINADPRLTNLSSNSDV

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**FIGURE 357A**

CGGAAGTTGCGCGCAGGCCGGCGGGGAGCGGACACCGAGGCCGGCGTGCAGGCCGTGCGGGTGTGCGGGAGCC  
GGGCTCGGGGGGATCGGACCGAGAGCGAGAAGCGCGGCATGGAGCTCCAGGCAGCCCGCGCCTGCTTCGCCCTGC  
TGTGGGGCTGTGCGCTGGCCGCGGCCGCGGCGCGCAGGGCAAGGAAGTGGTACTGCTGGACTTTGCTGCAGCTG  
GAGGGGAGCTCGGCTGGCTCACACACCCGTATGGCAAAGGGTGGGACCTGATGCAGAACATCATGAATGACATGC  
CGATCTACATGTACTCCGTGTGCAACGTGATGTCTGGCGACCAGGACAACCTGGCTCCGCACCAACTGGGTGTACC  
GAGGAGAGGCTGAGCGTAACAACCTTTGAGCTCAACTTTACTGTACGTGACTGCAACAGCTTCCCTGGTGGCGCCA  
GCTCCTGCAAGGAGACTTTCAACCTCTACTATGCCGAGTCGGACCTGGACTACGGCACCAACTTCCAGAAGCGCC  
TGTTACCAAGATTGACACCATTGCGCCCCGATGAGATCACCGTCAGCAGCGACTTCGAGGCACGCCACGTGAAGC  
TGAACGTGGAGGAGCGCTCCGTGGGGCCGCTCACCCGCAAAGGCTTCTACCTGGCCTTCCAGGATATCGGTGCCCT  
GTGTGGCGCTGCTCTCCGTCCGTGTCTACTACAAGAAGTGCCCCGAGCTGCTGCAGGGCCTGGCCCACTTCCCTG  
AGACCATCGCCGGCTCTGATGCACCTTCCCTGGCCACTGTGGCCGGCACCTGTGTGGACCATGCCGTGGTGCCAC  
CGGGGGGTGAAGAGCCCCGTATGCACTGTGCAGTGGATGGCGAGTGGCTGGTGCCATTGGGCAGTGCCTGTGCC  
AGGCAGGCTACGAGAAGGTGGAGGATGCCTGCCAGGCCTGCTCGCCTGGATTTTTTAAGTTTGAGGCATCTGAGA  
GCCCCCTGCTTGGAGTGCCCTGAGCACACGCTGCCATCCCCTGAGGGTGCCACCTCCTGCGAGTGTGAGGAAGGCT  
TCTTCCGGGCACCTCAGGACCCAGCGTCGATGCCTTGACACGACCCCCCTCCGCCCCACACTACCTCACAGCCG  
TGGGCATGGGTGCCAAGGTGGAGCTGCGCTGGACGCCCCCTCAGGACAGCGGGGGCCGCGAGGACATTGTCTACA  
GCGTCACCTGCGAACAGTGTGGCCCGAGTCTGGGGAATGCGGGCCGTGTGAGGCCAGTGTGCGCTACTCGGAGC  
CTCCTCACGGACTGACCCGCACCACTGTGACAGTGAAGCGACCTGGAGCCCCACATGAACCTACACCTTACCGTGG  
AGGCCCCGAATGGCGTCTCAGGCCTGGTAACCAGCCGAGCTTCCGTACTGCCAGTGTGACATCAACCAGACAG  
AGCCCCCAAGGTGAGGCTGGAGGGCCGAGCACCACTCGCTTAGCGTCTCCTGGAGCATCCCCCGCCGAGC  
AGAGCCGAGTGTGGAAGTACGAGGTCACTTACCGCAAGAAGGGAGACTCCAACAGCTACAATGTGCGCCGACCG  
AGGGTTTCTCCGTGACCTTGGACGACCTGGCCCCAGACACCACTACCTGGTCCAGGTGCAGGCACTGACGCAGG  
AGGGCCAGGGGGCCGCGCAGCAAGGTGCACGAATTCAGACGCTGTCCCCGAGGGATCTGGCAACTTGGCGGTGA  
TTGGCGCGTGGCTGTGCGGTGTGGTCTGCTTCTGGTGTGGCAGGAGTTGGCTTCTTTATCCACCGCAGGAGGA  
AGAACCAGCGTGCCCGCCAGTCCCCGGAGGACGTTTACTTCTCCAAGTCAGAACAACCTGAAGCCCCCTGAAGACAT  
ACGTGGACCCCCACACATATGAGGACCCCAACCAGGCTGTGTTGAAGTTCACTACCGAGATCCATCCATCCTGTG  
TCACTCGGCAGAAGGTGATCGGAGCAGGAGAGTTTGGGGAGGTGTACAAGGGCATGCTGAAGACATCCTCGGGGA  
AGAAGGAGGTGCCGGTGGCCATCAAGACGCTGAAAGCCGGCTACACAGAGAAGCAGCGAGTGGACTTCCCTCGGCG  
AGGCCGGCATCATGGGCCAGTTCAGCCACCACAACATCATCCGCCTAGAGGGCGTCATCTCCAAATACAAGCCCA  
TGATGATCATCACTGAGTACATGGAGAATGGGGCCCTGGACAAGTTCCCTCGGGAGAAGGATGGCGAGTTTACGCG  
TGCTGCAGCTGGTGGGCATGCTGCGGGGCATCGCAGCTGGCATGAAGTACCTGGCCAACATGAACATATGTGCACC  
GTGACCTGGCTGCCCCGAACATCCTCGTCAACAGCAACCTGGTCTGCAAGGTGTCTGACTTTGGCCTGTCCCGCG  
TGCTGGAGGACGACCCCGAGGCCACCTACACCACAGTGGCGGCAAGATCCCCATCCGCTGGACCGCCCCGGAGG  
CCATTTCTACCGGAAGTTACCTCTGCCAGCGACGTGTGGAGCTTTGGCATTGTCTATGTGGGAGGTGATGACCT  
ATGGCGAGCGGCCCTACTGGGAGTTGTCCAACCAGAGGTGATGAAAGCCATCAATGATGGCTTCCGGCTCCCCA  
CACCCATGGACTGCCCCCTCCGCCATCTACCAGCTCATGATGCAGTGTGTCAGCAGGAGCGTGCCCGCCGCCCA  
AGTTCGCTGACATCGTCAGCATCCTGGACAAGCTCATTCGTGCCCCCTGACTCCCTCAAGACCCTGGCTGACTTTG  
ACCCCGCGTGTCTATCCGGCTCCCCAGCACGAGCGGCTCGGAGGGGGTGCCCTTCCGCACGGTGTCCGAGTGGC  
TGGAGTCCATCAAGATGCAGCAGTATACGGAGCACTTCATGGCGGCCGGCTACACTGCCATCGAGAAGGTGGTGC  
AGATGACCAACGACGACATCAAGAGGATTGGGGTGGCGCTGCCCCGCCACCAGAAGCGCATCGCCTACAGCCTGC  
TGGGACTCAAGGACCAGGTGAACACTGTGGGGATCCCCATCTGAGCCTCGACAGGGCCTGGAGCCCCATCGGCCA  
AGAATACTTGAAGAAACAGAGTGGCCTCCCTGCTGTGCCATGCTGGGCCACTGGGGACTTTATTTATTTCTAGTT  
CTTTCCTCCCCCTGCAACTTCCGCTGAGGGTCTCGGATGACACCCTGGCCTGAACCTGAGGAGATGACCAGGGAT  
GCTGGGCTGGGCCCCCTTTCCCTGCGAGACGCACACAGCTGAGCACTTAGCAGGCACCGCCACGTCCCAGCATCC  
CTGGAGCAGGAGCCCCGCCACAGCCTTCGGACAGACATATAAGGATATTCCCAAGCCGACCTTCCCTCCGCCTTCT  
CCCACATGAGGCCATCTCAGGAGATGGAGGGCTTGGCCCAGCGCCAAGTAAACAGGGTACCTCAAGCCCCATTTTC  
CTCACACTAAGAGGGCAGACTGTGAACCTGACTGGGTGAGACCCAAAGCGGTCCCTGTCCCTCTAGTGCCTTCTT  
TAGACCCTCGGGCCCCATCCTCATCCCTGACTGGCCAAACCCTTGCTTTCTGGGCCTTTGCAAGATGCTTGGTT

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**FIGURE 357B**

GTGTTGAGGTTTTTAAATATATATTTTGTACTTTGTGGAGAGAATGTGTGTGTGTGGCAGGGGGCCCCGCCAGGG  
CTGGGGACAGAGGGTGTCAAACATTTCGTGAGCTGGGGACTCAGGGACCGGTGCTGCAGGAGTGTCTGCCCCATGC  
CCCAGTCGGCCCCATCTCTCATCCTTTTGGATAAGTTTCTATTCTGTCAGTGTTAAAGATTTTGTGTTTGTGGAC  
ATTTTTTTCGAATCTTAATTTATTATTTTTTTTATATTTATTGTTAGAAAATGACTTATTTCTGCTCTGGAATAA  
AGTTGCAGATGATTCAAACCG

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**FIGURE 358**

MELQAARACFALLWGICALAAAAAQQKEVLLDFAAAGGELGWLTHPYGKGWDLMQNIMNDMPIYMYSVCNVMSG  
DQDNWLRNTNWVYRGEAERNNFELNFTVRDCNSFPGGASSCKETFNLYYAESDLDYGTNFQKRLFTKIDTIAPDEI  
TVSSDFEARHVKLNVEERSVGPLTRKGFYLAFAQDIGACVALLSVRVYYKKCELLQGLAHFPETIAGSDAPSLAT  
VAGTCVDHAVVPPGGEEPRMHCAVDGEWLVPIGQCLCQAGYEKVEDACQACSPGFFKFEASESPCLECPEHTLPS  
PEGATSCECEEGFFRAPQDPASMPCTRPPSAPHYLTAVGMGAKVELRWTPPQDSGGREDIVYSVTCEQCWPESGE  
CGPCEASVRYSEPPHGLTRTSVTVSDLEPHMNYTFTVEARNGVSGLVTSRSFRTASVSINQTEPPKVRLEGRSTT  
SLSVSWSIPPPQQSRVWKYEVTYRKKGDSNSYNVRRTEGFSVTLDDLAPDTTYLVQVQALTQEGQGAGSKVHEFQ  
TLPESGSGNLAVIGGVAVGVVLLLVLAGVGFFIHRRRKNQRRARQSPEDVYFSKSEQLKPLKTYVDPHTYEDPNQA  
VLKFTTEIHPSCVTRQKVIGAGEFGEVYKGMMLKTSSGKKEVPVAIKTLKAGYTEKQRVDFLGEAGIMGQFSSHNI  
IRLEGVISKYKPMMIITEYMENGALDKFLREKDGESVLQLVGMLRGIAAGMKYLANMNYVHRDLAARNILVNSN  
LVCKVSDFGLSRVLEDDPEATYTTSGGKIPIRWTAPFAISYRKFTSASDVWSFGIVMWEVMTYGERPYWELSNHE  
VMKAINDFRLPTPMDCPSAIYQLMMQCWQQRARRPKFADIVSILDKLIRAPDSLKTLADFDPRVSIRLPSTSG  
SEGVPPFRTVSEWLESIKMQQYTEHFMAAGYTAIEKVVMQNTNDDIKRIGVRLPGHQKRIAYSLLGLKDQVNTVGIP  
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**FIGURE 359**

TTTAACACCCATAGTAGGCCTAAAAGCAGCCACCAATTAAGAAAGCCACAGCACGTACACCCACTCCAGGGATCT  
GCCAGCACCCCTGTGGGGCCCAGACTACAGGCTGATGGCGGAGGCTTCGAGTGACCCGGGTGCTGAGGAGCGGGAA  
GAGTTGCTGGGGCCCCTGCTCAGTGGAGCGTGGAGGACGAGGAGGAGGCCGTCCACGAGCAATGCCAGCATGAG  
AGAGACAGGCAGCTTCAGGCCCAGGACGAGGAGGGAGGCGGCCATGTCCCCGAGCGGCCGAAGCAGGAGATGCTC  
CTCAGCCTGAAGCCCTCGGAGGCCCTGAACTGGATGAGGACGAGGGCTTTGGCGACTGGTCCCAGAGGCCAGAG  
CAGCGGCAGCAGCACGAGGGGGCGCAGGGCGCCTTGGACAGCGGAGAGCCCCCAGTGCAGGAGTCTTGAGGGG  
GAGCAAGAGGACAGGCCCCGGCCTGCATGCCTACGAAAAGGAGGACAGTGATGAAGTCCACCTGGAGGAGTTGAGT  
CTGAGCAAGGAGGGGCCAGGCCCAGAGGACACTGTCCAGGACAACCTGGGGGCCGAGGGGCTGAGGAGGAACAG  
GAGGAGCACCAGAAATGTCAGCAGCCCAGGACACCCAGCCCCTTGGTCTTGGAGGGGACCATCGAACAGAGCTCG  
CCTCCCCTGAGCCCTACCACCAAACCTCATCGACAGGACCGAGTCCCTAAACCGCTCCATAGAGAAGAGTAACAGT  
GTGAAGAAATCCCAGCCAGACTTGCCCATCTCCAAGATTGATCAGTGGCTGGAACAATACACCCAGGCCATCGAG  
ACCGCTGGCCGGACCCCCAAGCTAGCCCGCCAGGCCTCCATAGAGCTGCCCAGCATGGCTGTGGCCAGTACCAAG  
AGTCGGTGGGAGACGGGTGAGGTACAGGCTCAGTCTGCGGCCAAGACTCCGTCCTGCAAGGATATTGTGGCTGGA  
GACATGAGCAAGAAAAGCCTCTGGGAGCAGAAGGGAGGCTCCAAGACCTCATCAACAATTAAGAGCACCCCATCT  
GGGAAGAGGTATAAGTTTGTGGCCACCGGGCATGGGAAGTATGAGAAGGTGCTTGTGGAAGGGGGCCCCGGCTCCC  
TAGGCGTCCCATCTCGCTTCCTGGGTCTGCAGGTCCAGCCGGCTGGCACCCCTCCATGTACCCAGGGGAGATTCCA  
GCCAGACACCCGCCCCCGGCCCTGGCTAAGAAGTTGCTTCCGTGTGCCAGCATGACCTACCCTCGCCTCTTTGA  
TGCCATCCGCTGCCACCTCCTTTTGCTCCTGGACCCCTTTAGCCTCTCTGCCCTTCCACTCTCTGACCACCGCCCC  
CGCCCTCCCCACCCAGCTCCGCTTCTTGTTACTTGGGGGAGGAAAGAACTCCTGATCATTGGCCAAAGGGACTT  
ACCCCTGGAGAGGCCAAGTGCCTTCTAGGAAGTTAGGAGGTTGAGGCACAGCCTGTGCAGAGAGGGTGGGTCACC  
CCCCCAGATCCAAGGGGAAACTGCAGGTCAAGGGCTGATAACGGCCATGCAGGATGCTTGATGCTGCGTCCCCCG  
CTGCTTGCCGCCCCCACCCCGCCATTTTGTATAATAAAGCTCCCTGTGTATTCTC

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**FIGURE 360**

MAEASSDPGAEEEREELLGPTAQWSVEDEEEEAVHEQCQHERDRQLQAQDEEGGHHVPERPKQEMLLSLKPSEAPEL  
DEDEGFGDWSQRPEQRQQHEGAQGALDSGEPPQCRSPEGEQEDRPGLHAYEKEDSDEVHLEELSLSKEGPGPEDT  
VQDNLGAAGAEEREEHQKCQQPRTSPPLVLEGTIEQSSPPLSPTTKLIDRTESLNRSIEKSNSVKKSQPDLPIS  
KIDQWLEQYTQAIETAGRTPKLARQASIELPSMAVASTKSRWETGEVQAQSAAKTPSCKDIVAGDMSKKSLWEQK  
GSKTSSTIKSTPSGKRYKFVATGHGKYEKVLVEGGPAP

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**FIGURE 361**

AAACACTCTGTGTGGCTCCTCGGCTTTGGGACAGAGTGCAAGACGATGACTTGCAAAATGTCGCAGCTGGAACGC  
AACATAGAGACCATCATCAACACCTTCCACCAATACTCTGTGAAGCTGGGGCACCCAGACACCCTGAACCAGGGG  
GAATTCAAAGAGCTGGTGCGAAAAGATCTGCAAAATTTTCTCAAGAAGGAGAATAAGAATGAAAAGGTCATAGAA  
CACATCATGGAGGACCTGGACACAAATGCAGACAAGCAGCTGAGCTTCGAGGAGTTCATCATGCTGATGGCGAGG  
CTAACCTGGGCCTCCACGAGAAGATGCACGAGGGTGACGAGGGCCCTGGCCACCACCATAAGCCAGGCCTCGGG  
GAGGGCACCCCTTAAGACCACAGTGGCCAAGATCACAGTGGCCACGGCCATGGCCACAGTCATGGTGGCCACGGC  
CACAGGCCACTAATCAGGAGGCCAGGCCACCCTGCCTCTACCCAACCAGGGCCCCGGGGCCTGTTATGTCAAAC  
GTCTTGGCTGTGGGGCTAGGGGCTGGGGCCAAATAAAGTCTCTTCCTCCAA

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**FIGURE 362**

MTCKMSQLERNIETIINTFHQYSVKLGHPDTLNQGEFKELVRKDLQNFLKKENKNEKVIEHIMEDLDTNADKQLS  
FEEFIMLMARLTWASHEKMHEGDEGPGHHHKPGLGEGTP



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**FIGURE 363**

TGCCGCAGCCCCGCCCGCCCGCAGAGCTTTTGAAAGGCGGCGGGAGGCGGCGAGCGCCATGGCCAGTCCGGGCT  
GCCTGCTGTGCGTGCTGCTGGGCCTGCTACTCTGCGGGGCGGCGAGCCTCGAGCTGTCTAGACCCACGGCGACACCG  
CCAAGAAGCCCATCATCGGAATATTAATGCAAAAATGCCGTAATAAAGTCATGAAAACTATGGAAGATACTATA  
TTGCTGCGTCCTATGTAAAGTACTTGGAGTCTGCAGGTGCGAGAGTTGTACCAGTAAGGCTGGATCTTACAGAGA  
AAGACTATGAAATACTTTTCAAATCTATTAATGGAATCCTTTTCCCTGGAGGAAGTGTTGACCTCAGACGCTCAG  
ATTATGCTAAAGTGGCCAAAATATTTTATAACTTGTCCATACAGAGTTTGTATGATGGAGACTATTTTCCTGTGT  
GGGGCACATGCCTTGGATTTGAAGAGCTTTCAGTGTGATTAGTGGAGAGTGCTTATTAAGTCCACAGATACTG  
TTGACGTGGCAATGCCGCTGAACCTCACTGGAGGTCAATTGCACAGCAGAATGTTCCAGAATTTTCTACTGAGT  
TGTTGCTGTCAATTAGCAGTAGAACCTCTGACTGCCAATTTCCATAAGTGGAGCCTCTCCGTGAAGAATTTTACAA  
TGAATGAAAAGTTAAAGAAGTTTTTCAATGTCTTAACTACAAATACAGATGGCAAGATTGAGTTTATTTCAACAA  
TGGAAGGATATAAGTATCCAGTATATGGTGTCCAGTGGCATCCAGAGAAAGCACCTTATGAGTGGAAGAATTTGG  
ATGGCATTTCCTCATGCACCTAATGCTGTGAAAACCGCATTTTATTTAGCAGAGTTTTTTGTTAATGAAGCTCGGA  
AAAACAACCATCATTTTAAATCTGAATCTGAAGAGGAGAAAGCATTGATTTATCAGTTCAGTCCAATTTATACTG  
GAAATATTTCTTCATTTAGCAATGTTACATATTTGATTGAAAGTCTTCAATTTGTTAACAGAGCAAATTTGAAT  
AATTCCATGATTAAACTGTTAGAATAACTTGCTACTCATGGCAAGATTAGGAAGTCACAGATTCTTTTCTATAAT  
GTGCCTGGCTCTGATTCTTCATTATGTATGTGACTATTTATATAACATTAGATAATTAAATAGTGAGACATAAAT  
AGAGTGCTTTTTTCATGGAAAAGCCTTCTTATATCTGAAGATTGAAAAATAAATTTACTGAAATACAAAAAAAAA  
AAAAA

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**FIGURE 364**

MASPGCLLCVLGLLLCGAASLELSRPHGDTAKKPIIGILMQKCRNKVMKNYGRYYIAASYVKYLESAGARVVPVR  
LDLTEKDYEILFKSINGILFPGGSVDLRRSDYAKVAKIFYNLSIQSFDDGDYFPVWGTCLGFEELSLLISGECLL  
TATDTVDVAMPLNFTGGQLHSRMFQNFPTHELLSLAVEPLTANFHKWSLSVKNFTMNEKLKKFFNVLTTNTDGKI  
EFISTMEGYKYPVYGVQWHPEKAPYEWKNLDGISHAPNAVKTAFYLAEFFVNEARKNNHHFKSESEEEKALIYQF  
SPIYTGNISSFQQCYIFD

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**FIGURE 365**

CTCTTGACGACTCCACAGATACCCCGAAGCCATGGCAAGCAAGGGCTTGCAGGACCTGAAGCAACAGGTGGAGGG  
GACCGCCCAGGAAGCCGTGTCAGCGGCCGGAGCGGCAGCTCAGCAAGTGGTGGACCAGGCCACAGAGGCGGGGCA  
GAAAGCCATGGACCAGCTGGCCAAGACCACCCAGGAAACCATCGACAAGACTGCTAACCAGGCCTCTGACACCTT  
CTCTGGGATCGGGAAAAAATTCGGCCTCCTGAAATTGACAGCAGGGAGACTTGGGTCGGCCTCCTGAAATGATAGC  
AGGGAGACTTGGGTGACCCCCCTTCCAGGCGCCATCTAGCACAGCCTGGCCCTGATCTCCGGGCAGCCACCACCT  
CCTCGGTCTGCCCCCTCATTAAAATTACGTTCCCACCCTGAAA

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**FIGURE 366**

MASKGLQDLKQQVEGTAQEAVSAAGAAAQQVVDDQATEAGQKAMDQLAKTTQETIDKTANQASDTFSGIGKKFGLL  
K

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**FIGURE 367A**

TTGAGAAAGGGGAATTTTCATCCCAAATAAAAAGGAATGAAGTCTGGCTCCGGAGGAGGGTCCCCGACCTCGCTGTG  
GGGGCTCCTGTTTTCTCTCCGCCGCGCTCTCGCTCTGGCCGACGAGTGGAGAAATCTGCGGGCCAGGCATCGACAT  
CCGCAACGACTATCAGCAGCTGAAGCGCTGGAGAACTGCACGGTGATCGAGGGCTACCTCCACATCTGTCTCAT  
CTCCAAGGCCGAGGACTACCGCAGCTACCGCTTCCCCAAGCTCACGGTCATTACCGAGTACTTGCTGCTGTTCCG  
AGTGGCTGGCCTCGAGAGCCTCGGAGACCTCTTCCCCAACCTCACGGTCATCCGCGGCTGGAAACTCTTCTACAA  
CTACGCCCTGGTCATCTTCGAGATGACCAATCTCAAGGATATTGGGCTTTACAACCTGAGGAACATTACTCGGGG  
GGCCATCAGGATTGAGAAAAATGCTGACCTCTGTTACCTCTCCACTGTGGACTGGTCCCTGATCCTGGATGCGGT  
GTCCAATAACTACATTGTGGGGAATAAGCCCCCAAAGGAATGTGGGGACCTGTGTCCAGGGACCATGGAGGAGAA  
GCCGATGTGTGAGAAGACCACCATCAACAATGAGTACAACCTACCGCTGCTGGACCACAAACCGCTGCCAGAAAAAT  
GTGCCCAAGCACGTGTGGGAAGCGGGCGTGCACCGAGAACAAATGAGTGTGTCACCCCGAGTGCCTGGGCAGCTG  
CAGCGCGCCTGACAACGACACGGCCTGTGTAGCTTGCCGCCACTACTACTATGCCGGTGTCTGTGTGCCTGCCTG  
CCCGCCAACACCTACAGGTTTGAGGGCTGGCGCTGTGTGGACCGTGACTTCTGCGCCAACATCCTCAGCGCCGA  
GAGCAGCGACTCCGAGGGGTTTGTGATCCACGACGGCGAGTGCATGCAGGAGTGCCCTCGGGCTTCATCCGCAA  
CGGCAGCCAGAGCATGTACTGCATCCCTTGTGAAGGTCTTGGCCGAAGGTCTGTGAGGAAGAAAAGAAAAACAA  
GACCATTGATTCTGTTACTTCTGTCTCAGATGCTCCAAGGATGCACCATCTTCAAGGGCAATTTGCTCATTAAAT  
CCGACGGGGGAATAACATTGCTTCAGAGCTGGAGAACTTCATGGGGCTCATCGAGGTGGTGACGGGCTACGTGAA  
GATCCGCCATTCTCATGCCTTGGTCTCCTTGTCTTCTTAAAAAACCTTCGCCTCATCCTAGGAGAGGAGCAGCT  
AGAAGGGAATTACTCCTTCTACGTCCTCGACAACCCAGAAGTTCAGCAACTGTGGGACTGGGACCACCGCAACCT  
GACCATCAAAGCAGGGAAAAATGTACTTTGCTTTCAATCCCAAATATGTGTTTCCGAAATTTACCGCATGGAGGA  
AGTGACGGGGACTAAAGGGCGCCAAAGCAAAGGGGACATAAACACCAGGAACAACGGGGAGAGAGCCTCCTGTGA  
AAGTGACGTCTGCATTTACCTCCACCACACGTCGAAGAATCGCATCATATAACCTGGCACCAGGTACCGGCC  
CCCTGACTACAGGGATCTCATCAGCTTACCGTTTACTACAAGGAAGCACCTTTAAGAATGTACAGAGTATGA  
TGGGCAGGATGCCTGCGGCTCCAACAGCTGGAACATGGTGGACGTGGACCTCCCGCCCAACAAGGACGTGGAGCC  
CGGCATCTTACTACATGGGCTGAAGCCCTGGACTCAGTACCGCGTTTACGTCAAGGCTGTGACCCTCACCATGGT  
GGAGAACGACCATATCCGTGGGGCCAAGAGTGAGATCTTGTACATTGCGACCAATGCTTCAGTTCCTTCCATTCC  
CTTGACGTTCTTTCAGCATCGAACTCCTCTTCTCAGTTAATCGTGAAGTGAACCTCCCTCTCTGCCCAACGG  
CAACCTGAGTTACTACATTGTGCGCTGGCAGCGCAGCCTCAGGACGGCTACCTTTACCGGCACAATTACTGCTC  
CAAAGACAAAAATCCCCATCAGGAAGTATGCCGACGGCACCATCGACATTGAGGAGGTACAGAGAACCCCAAGAC  
TGAGGTGTGTGGTGGGGAGAAAGGGCCTTGTGCGCCTGCCCCAAAACCTGAAGCCGAGAAGCAGGCCGAGAAGGA  
GGAGGCTGAATAACCGCAAAGTCTTTGAGAATTTCTGCACTCACTCATCTTCGTGCCAGACCTGAAAGGAAGCG  
GAGAGATGTATGCAAGTGGCCAAACACCACCATGTCCAGCCGAAGCAGGAACACCACGGCCGACACCTACAA  
CATCACCGACCCGGAAGAGCTGGAGACAGAGTACCCTTTCTTTGAGAGCAGAGTGGATAACAAGGAGAGAACTGT  
CAATTTCTAACCTTCGGCCTTTCACATTGTACCGCATCGATATCCACAGCTGCAACCACGAGGCTGAGAAGCTGGG  
CTGCAGCGCCTCCAACCTTCGTCTTTGCAAGGACTATGCCCGCAGAAGGAGCAGATGACATTCTGGGCCAGTGAC  
CTGGGAGCCAAGGCCTGAAAACCTCCATCTTTTTAAAGTGGCCGGAACCTGAGAATCCCAATGGATTGATTCTAAT  
GTATGAAATAAAATACGGATCACAAGTTGAGGATCAGCGAGAATGTGTGTCCAGACAGGAATACAGGAAGTATGG  
AGGGGCCAAGCTAAACCGGCTAAACCCGGGGAACCTACACAGCCCGGATTACAGGCCACATCTCTCTGCGGAATGG  
GTCGTGGACAGATCCTGTGTTCTTCTATGTCCAGGCCAAAACAGGATATGAAAACCTTCATCCATCTGATCATCGC  
TCTGCCCCGTGCTGTCTGTGATCGTGGGAGGGTTGGTGATTATGCTGTACGTCTTCCATAGAAAGAGAAATAA  
CAGCAGGCTGGGGAATGGAGTGCTGTATGCCTCTGTGAACCCGGAGTACTTCAGCGCTGCTGATGTGTACGTTCC  
TGATGAGTGGGAGGTGGCTCGGGAGAAAGATCACCATGAGCCGGGAACCTTGGGCAGGGGTCGTTTGGGATGGTCTA  
TGAAGGAGTTGCCAAGGGTGTGGTGAAAGATGAACCTGAAACCAGAGTGGCCATTAAAACAGTGAACGAGGCCGC  
AAGCATGCGTGAGAGGATTGAGTTTCTCAACGAAGCTTCTGTGATGAAGGAGTTCAATTGTACCATGTGGTGCG  
ATTGCTGGGTGTGGTGTCCCAAGGCCAGCCAACACTGGTCATCATGGAAGTGTGACACGGGGCGATCTCAAAG  
TTATCTCCGGTCTCTGAGGCCAGAAATGGAGAATAATCCAGTCCTAGCACCTCCAAGCCTGAGCAAGATGATTCA  
GATGGCCGGAGAGATTGCAGACGGCATGGCATACCTCAACGCCAATAAGTTCTGTCACAGAGACCTTGCTGCCCG  
GAATTGCATGGTAGCCGAAGATTTACAGTCAAAATCGGAGATTTTGGTATGACGCGAGATATCTATGAGACAGA  
CTATTACGGAAAGGAGGGAAAGGGCTGCTGCCCGTGCCTGGATGTCTCCTGAGTCCCTCAAGGATGGAGTCTT

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**FIGURE 367B**

CACCACTTACTCGGACGTCTGGTCCTTCGGGGTCTGCTCTCTGGGAGATCGCCACACTGGCCGAGCAGCCCTACCA  
GGGCTTGTCCAACGAGCAAGTCCTTCGCTTCGTCATGGAGGGCGGCCTTCTGGACAAGCCAGACAACCTGTCCTGA  
CATGCTGTTTGAAGTGATGCGCATGTGCTGGCAGTATAACCCCAAGATGAGGCCTTCCTTCTGGAGATCATCAG  
CAGCATCAAAGAGGAGATGGAGCCTGGCTTCCGGGAGGTCTCCTTCTACTACAGCGAGGAGAACAAGCTGCCCCGA  
GCCGGAGGAGCTGGACCTGGAGCCAGAGAACATGGAGAGCGTCCCCCTGGACCCCTCGGCCTCTCGTCCTCCCT  
GCCACTGCCCCGACAGACACTCAGGACACAAGGCCGAGAACGGCCCCGGCCCTGGGGTGCTGGTCCTCCGCGCCAG  
CTTCGACGAGAGACAGCCTTACGCCACATGAACGGGGGCCGAAGAACGAGCGGGCCTTGCCGCTGCCCCAGTC  
TTCGACCTGCTGATCCTTGGATCCTGAATCTGTGCAAACAGTAACGTGTGCGCACGCGCAGCGGGGTGGGGGGG  
AGAGAGAGTTTTAACAATCCATTACAAGCCTCCTGTACCTCAGTGGATCTTCAGAACTGCCCTTGCTGCCCCG  
GGAGACAGCTTCTCTGCAGTAAAACACATTTGGGATGTTCTTTTTTCAATATGCAAGCAGCTTTTTATTCCCTG  
CCCAAACCTTAAGTACATGGGCCTTTAAGAACCTTAATGACAACACTTAATAGCAACAGAGCACTTGAGAACC  
AGTCTCCTCACTCTGTCCCTGTCTTCCCTGTTCTCCCTTTCTCTCTCTCTGCTTCATAACGGAAAAATAAT  
TGCCACAAGTCCAGCTGGGAAGCCCTTTTTATCAGTTTGAGGAAGTGGCTGTCCCTGTGGCCCCATCCAACCACT  
GTACACACCCGCTGACACCGTGGGTCAATTACAAAAAACACGTGGAGATGGAAATTTTTACCTTTATCTTTCAC  
CTTTCTAGGGACATGAAATTTACAAAGGGCCATCGTTTCATCCAAGGCTGTTACCATTTTTAACGCTGCCTAATTTT  
GCCAAATCCTGAACCTTTCTCCCTCATCGCCCCGGCGCTGATTCTCGTGTCCGGAGGCATGGGTGAGCATGGCA  
GCTGGTTGCTCCATTTGAGAGACACGCTGGCGACACACTCCGTCCATCCGACTGCCCCCTGCTGTGCTCAAGG  
CCACAGGCACACAGGTCTCATTGCTTCTGACTAGATTATTATTGGGGGAAGTGGACACAATAGGTCTTCTCTC  
AGTGAAGGTGGGGAGAAGCTGAACCGGCTTCCCTGCCCTGCCTCCCCAGCCCCCTGCCCAACCCCCAAGAATCTG  
GTGGCCATGGGCCCCGAAGCAGCCTGGCGGACAGGCTTGGAGTCAAGGGGGCCCCATGCCTGCTTCTCTCCAGCC  
CCAGCTCCCCCGCCCCGCCCAAGGACACAGATGGGAAGGGGTTTCCAGGGACTCAGCCCCACTGTTGATGCAGG  
TTTGCAAGGAAAGAAATTCAAACACCACAACAGCAGTAAGAAGAAAAGCAGTCAATGGATTCAAGCATTCTAAGC  
TTTGTTGACATTTTCTCTGTTCTTAGGACTTCTTCATGGGTCTTACAGTTCTATGTTAGACCATGAAACATTTGC  
ATACACATCGTCTTTAATGTCACTTTTTATAACTTTTTTACGGTTCAGATATTCATCTATACGTCTGTACAGAAAA  
AAAAAGCTGCTATTTTTTTTTGTTCTTGATCTTTGTGGATTTAATCTATGAAAACCTTCAGGTCCACCCCTCTCCC  
CTTTCTGCTCACTCCAAGAACTTCTTATGCTTTGTACTAGAGTGCGTGACTTTCTTCTCTTTTCCCGGTAATG  
GATACTTCTATCACATAATTTGCCATGAAGTGTGGATGCCTTTTTATAAATACATCCCCATCCCTGCTCCAC  
CTGCCCCCTTAGTTGTTTTCTAACCCGTAGGCTCTCTGGGCACGAGGCAGAAAGCAGGCCGGGCACCCATCCTGA  
GAGGGCCGCGCTCCTCTCCCCAGCCTGCCCTCACAGCATTGGAGCCTGTTACAGTGCAAGACATGATACAAACTC  
AGGTCAGAAAAACAAAGGTTAAATATTTTACACAGTCTTTGTTCAAGTGTTCCTCACTCACCCTGGTTGAGAAGCCTC  
ACCCTCTCTTTCCCTTGCCCTTTGCTTAGGTTGTGACACACATATATATATATTTTTTAAATCTTGGGTACAACA  
GCAGTGTTAACCGCAGACACTAGGCATTTGGATTACTATTTTCTTAATGGCTATTTAATCCTTCCATCCACGA  
AAAACAGCTGCTGAGTCCAAGGGAGCAGCAGAGCGTGGTCCGGCAGGGCCTGTTGTGGCCCTCGCCACCCCCCTC  
ACCGGACCGACTGACCTGTCTTTGGAACCAGAACATCCCAAGGGAACTCCTTCGCACTGGCGTTGAGTGGGACCC  
CGGGATCCAGGCTGGCCAGGGCGGCACCTCAGGGCTGTGCCCGCTGGAGTGCTAGGTGGAGGCAGCACAGACG  
CCACGGTGGCCCAAGAGCCCTTTGCTTCTTGCTGGGGGACCAGGGCTGTGGTGCTGGCCCACTTTCCCTCGGCC  
AGGAATCCAGGTCCTTGGGGCCCAGGGTCTTGTCTTGTTCATTTTTAGCACTTCTCACCAGAGAGATGACAGC  
ACAAGAGTTGCTTCTGGGATAGAAATGTTTAGGAGTAAGAACAAAGCTGGGATACGGTGATTGCTAGTTGTGACT  
GAAGATTCAACACAGAAAAGAAAGTTTATACGGCTTTTTTGTGCTGGTCAGCAGTTTGTCCCCTGCTTTCTCTAGT  
CTCTATCCCATAGCGTGTTCCTTTAAAAAAGGTTATTATATGTAGGAGTTTTCTTTTAAATTTATTTTG  
TGATAAATTACCAGTTCAATCACTGTAGAAAAGCCCCATTATGAATTTAAATTTCAAGGAAAGGGTGTGTGTGG  
AA

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**FIGURE 368**

MKSGSGGGSPSTSLWGLLFLSAALSLWPTSGEICGPGIDIRNDYQQLKRLNCTVIEGYLHILLISKAEDYRSYRF  
PKLTVITEYLLLFVAGLESLGDLFPNLTVIRGWKLFYNYALVIFEMTNLKDIGLYNLRNITRGAIRIEKNADLC  
YLSTVDWSLILDVSNNYIVGNKPPKECGDLCPGTMEEEKPMCEKTTINNEYNYRCWTTNRCQKMCPSTCGKRACT  
ENNECCHPECLGSCSAPDNDTACVACRHHYAGVCVPACPPNTYRFEGWRCVDRDFCANILSAESSDSEGFVIHD  
GECMQECPSGFIRNGSQSMYCIPCEGPCPKVCEEEKTKTIDSVTSAQMLQGCTIFKGNLLINIRGNNIASELE  
NFMGLIEVVTGYVKIRSHALVSLSLFLKNLRLILGEEQLEGNYSFYVLDNQNLQQLWDWDHRNLTIKAGKMYFAF  
NPKLCVSEIYRMEEVTGKGRQSKGDINTRNNGERASCESDVLHFTSTTTSKNRIITWHRYRPPDYRDLISFTV  
YYKEAPFKNVTEYDGDQACGSNSWNMVDVLDPPNKDVEPGILLHGLKPWTQYAVYVKAVTLTMVENDHIRGAKSE  
ILYIRTNASVPSIPLDVLSASNSSSQLIVKWNPPSLPNGNLSYYIVRWQRQPQDGYLYRHNYCSKDKIPIRKYAD  
GTIDIEEV TENPKTEVC GGEGKGPCCACPKTEAEKQAEKEEAERYKVFENFLHNSIFVPRPERKRRDVMQVANTM  
SSRSRNTTAADTYNITDPEELETEYPPFFESRVDNKERTVISNLRPFTLYRIDIHSCNHEAEKLGCSASN VFV FART  
MPAEGADDIPGPVTWEPRPENSIFLKWPEPENPNGLILMYEIKYGSQVEDQRECVSRQEYRKYGGAKLNRLNPGN  
YTARIQATSLSGNGSWTDPVFFYVQAKTGYENFIHLIITLPAVALLIVGGLVIMLYVFRKRNN SRLGNGVLYAS  
VNPEYFSAADVYPDEWEVAREKITMSRELQGSFGMVYEGVAKGVVKDEPETRVAIKTVNEAASMRERIEFLNE  
ASVMKEFNCHHVRL LGVVSQGQPTLVIMELMTRGDLKSYLRSRPEMENN PVLAPPSLSKMIQMA GEIADGMAY  
LNANKFVHRDLAARNCMVAEDFTVKIGDFGMTRDIYETDYRKGGKGLLPVRWMSPE SLKDG VFTTYS DVWSFGV  
VLWEIATLAEQPYQGLSNEQVLR FVMEGGLLDKPDNCPDMLFELMRMCWQYNPKMRPSFLEIISSIKEEMEPGFR  
EVSFY YSEENKLPEPEELDLEPENMESVPLDPSASSSSLPLPDRHSGHKAENGPGPGVLVLRASFDERQPYAHMN  
GGRKNERALPLPQSSTC

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**FIGURE 369A**

GAGCGGGCGAGGGAGCGCGCGCGGGCCGCCACAAAGCTCGGGCGCCGCGGGGCTGCATGCGGGCGTACCTGGCCCCGG  
CGCGGGCGACTGCTCTCCGGGCTGGCGGGGGCCGGCCGCGAGCCCCGGGGGCCCCGAGGCCGAGCTTGCCTGCGC  
GCTCTGAGCCTTCGCAACTCGCGAGCAAAGTTTGGTGGAGGCAACGCCAAGCCTGAGTCCTTTCTTCTCTCGTT  
CCCCAAATCCGAGGGCAGCCCGCGGGCGTCATGCCCGCGCTCCTCCGAGCCTGGGGTACGCGCTGAAGCCCCGGG  
AGGCTTGGCGCCGGCGAAGACCCAAGGACCACTCTTCTGCGTTTGGAGTTGCTCCCCACAACCCCGGGCTCGTCG  
CTTTCTCCATCCCCGACCCAGCCGGGGCGCGGGGACAACACAGGTGCGGGAGGAGCGTTGCCATTCAAGTGACTGC  
AGCAGCAGCGGCGAGCGCCTCGGTTCTGAGCCACCGCAGGCTGAAGGCATTGCGCGTAGTCCATGCCCGTAGAG  
GAAGTGTGCAGATGGGATTAACGTCCACATGGAGATATGGAAGAGGACCGGGGATTGGTACCGTAACCATGGTCA  
GCTGGGGTCTGTTTCATCTGCTGGTCTGGTACCATGGCAACCTTGTCCCTGGCCCCGGCCCTCCTTCAGTTTAG  
TTGAGGATACCAATTAGAGCCAGAAGAGCCACCAACCAATACCAATCTCTCAACCAGAAGTGACGTGGCTG  
CGCCAGGGGAGTCGCTAGAGGTGCGCTGCTGTTGAAAGATGCCGCCGTGATCAGTTGGACTAAGGATGGGGTGC  
ACTTGGGGCCCCAACAAATAGGACAGTGCTTATTGGGGAGTACTTGAGATAAAGGGCGCCACGCTAGAGACTCCG  
GCCTCTATGCTTGTACTGCCAGTAGGACTGTAGACAGTGAACTTGGTACTTCATGGTGAATGTCACAGATGCCA  
TCTCATCCGGAGATGATGAGGATGACACCGATGGTGCAGGAAGATTTTGTGAGTGAGAACAGTAACAACAAGAGAG  
CACCATACTGGACCAACACAGAAAAGATGGAAGAGCGGCTCCATGCTGTGCTGCGGCCAACACTGTCAAGTTTC  
GCTGCCCAGCCGGGGGGAACCCAATGCCAACCATGCGGTGGCTGAAAACCGGAAGGAGTTTAAGCAGGAGCATC  
GCATTGGAGGCTACAAGGTACGAAACCAGCACTGGAGCCTCATTATGGAAAGTGTGGTCCCATCTGACAAGGGAA  
ATTATACCTGTGTGGTGGAGAATGAATACGGGTCCATCAATCACACGTACCACCTGGATGTTGTGGAGCGATCGC  
CTCACCGGCCCATCTCCAAGCCGGACTGCCGGCAAATGCCTCCACAGTGGTTCGGAGGAGACGTAGAGTTTGTCT  
GCAAGGTTTACAGTGATGCCAGCCCCACATCCAGTGGATCAAGCACGTGGAAAAGAACGGCAGTAAATACGGGC  
CCGACGGGCTGCCCTACCTCAAGGTTCTCAAGGTTCTCAAGGCCCGCGGTGTTAACACCACGGACAAAAGAGATTG  
AGGTTCTCTATATTGGAATGTAACTTTGGAGACGCTGGGGAATATACGTGCTTGGCGGGTAATTCTATTGGGA  
TATCCTTTCACTCTGCATGGTTGACAGTTCTGCCAGCGCCTGGAAGAGAAAAGGAGATTACAGCTTCCCCAGACT  
ACCTGGAGATAGCCATTTACTGCATAGGGGTCTTCTTAATCGCCTGTATGGTGGTAACAGTCATCTGTGCCGAA  
TGAAGAACACGACCAAGAAGCCAGACTTCAGCAGCCAGCCGGCTGTGCACAAGCTGACCAAACGTATCCCCCTGC  
GGAGACAGGTTTTCGGCTGAGTCCAGCTCCTCCATGAACTCCAACACCCCGCTGGTGAGGATAACAACACGCCCTCT  
CTTCAACGGCAGACACCCCCATGCTGGCAGGGGTCTCCGAGTATGAACTTCCAGAGGACCCAAAATGGGAGTTTC  
CAAGAGATAAGCTGACACTGGGCAAGCCCCCTGGGAGAAGGTTGCTTTGGGCAAGTGGTCATGGCGGAAGCAGTGG  
GAATTGACAAAGACAAGCCCAAGGAGGCGGTACCGTGGCCGTGAAGATGTTGAAAGATGATGCCACAGAGAAAAG  
ACCTTTCTGATCTGGTGTGACAGATGGAGATGATGAAGATGATTGGGAAACACAAGAATATCATAAATCTTCTTG  
GAGCCTGCACACAGGATGGGCCTCTCTATGTCTAGTTGAGTATGCCTCTAAAGGCAACCTCCGAGAATACCTCC  
GAGCCCGGAGGCCACCCGGGATGGAGTACTCCTATGACATTAACCGTGTTCCTGAGGAGCAGATGACCTTCAAGG  
ACTTGGTGTGATGCACCTACCAGCTGGCCAGAGGCATGGAGTACTTGGCTTCCCAAAAATGTATTTCATCGAGATT  
TAGCAGCCAGAAATGTTTTGGTAACAGAAAACAATGTGATGAAAATAGCAGACTTTGGACTCGCCAGAGATATCA  
ACAATATAGACTATTACAAAAGACCACCAATGGGCGGCTTCCAGTCAAGTGGATGGCTCCAGAAGCCCTGTTTG  
ATAGAGTATACACTCATCAGAGTGATGTCTGGTCTTCGGGGTGTTAATGTGGGAGATCTTCACTTTAGGGGGCT  
CGCCCTACCCAGGGATTCCCGTGGAGGAACTTTTTAAGCTGCTGAAGGAAGGACACAGAATGGATAAGCCAGCCA  
ACTGCACCAACGAACGTGACATGATGATGAGGACTGTTGGCATGCAGTGCCCTCCAGAGACCAACGTTCAAGC  
AGTTGGTAGAAGACTTGGATCGAATTCTCACTCTCACAAACCAATGAGGAATACTTGGACCTCAGCCAACCTCTCG  
AACAGTATTACCTAGTTACCCTGACACAAGAAGTTCTTGTTCTTCAGGAGATGATTCTGTTTTTCTCCAGACC  
CCATGCCTTACGAACCATGCCTTCCTCAGTATCCACACATAAACGGCAGTGTTAAACATTGAATGACTGTGTCTG  
CCTGTCCCCAACAGGACAGCACTGGGAACCTAGCTACACTGAGCAGGGAGACCATGCCTCCAGAGCTTGTTGT  
CTCCACTTGTATATATGGATCAGAGGAGTAAATAATTGGAAGGTAATCAGCATATGTGTAAAGATTTATACAGT  
TGAAAACCTGTAATCTTCCCCAGGAGGAGAAGAAGTTTTCTGGAGCAGTGGACTGCCACAAGCCACCATGTAACC  
CCTCTACCTGCCGTGCGTACTGGCTGTGGACCAGTAGGACTCAAGGTGGACGTGCGTTCTGCCTTCCTTGTTAA  
TTTTGTAATAATTGGAGAAGATTTATGTCAGCACACACTTACAGAGCACAAATGCAGTATATAGGTGCTGGATGT  
ATGTAAATATATTCAAATTATGTATAAATATATATTATATATTTACAAGGAGTTATTTTTTGTATTGATTTTAA  
TGGATGTCCCAATGCACCTAGAAAATTGGTCTCTCTTTTTTTAATAGCTATTTGCTAAATGCTGTTCTTACACAT



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**FIGURE 369B**

AATTTCTTAATTTTCACCGAGCAGAGGTGGAAAAATACTTTTGCTTTCAGGGAAAATGGTATAACGTTAATTTAT  
TAATAAATTGGTAATATACAAAACAATTAATCATTTATAGTTTTTTTTTGTAATTTAAGTGGCATTCTATGCAGG  
CAGCACAGCAGACTAGTTAATCTATTGCTTGGACTTAACTAGTTATCAGATCCTTTGAAAAGAGAATATTTACAA  
TATATGACTAATTTGGGGAAAATGAAGTTTTGATTTATTTGTGTTTAAATGCTGCTGTCAGACGATTGTTCTTAG  
ACCTCCTAAATGCCCCATATTAAAAGAACTCATTATAGGAAGGTGTTTCATTTTGGTGTGCAACCCTGTCATTA  
CGTCAACGCAACGTCTAACTGGACTTCCCAAGATAAATGGTACCAGCGTCCTCTTAAAAGATGCCTTAATCCATT  
CCTTGAGGACAGACCTTAGTTGAAATGATAGCAGAATGTGCTTCTCTCTGGCAGCTGGCCTTCTGCTTCTGAGTT  
GCACATTAATCAGATTAGCCTGATTCTCTTCAGTGAATTTTGATAATGGCTTCCAGACTCTTTGCGTTGGAGACG  
CCTGTTAGGATCTTCAAGTCCCATCATAGAAAATTGAAACACAGAGTTGTTCTGCTGATAGTTTTGGGGATACGT  
CCATCTTTTTTAAGGGATTGCTTTTCATCTAATTCTGGCAGGACCTCACCAAAGATCCAGCCTCATACCTACATCA  
GACAAAATATCGCCGTTGTTTCCTTCTGTACTAAAGTATTGTGTTTTGCTTTGGAAACACCCACTCACTTTGCAAT  
AGCCGTGCAAGATGAATGCAGATTACACTGATCTTATGTGTTACAAAATTGGAGAAAGTATTTAATAAAACCTGT  
TAATTTTTTATACTGACAATAAAAATGTTTCTACAGATATTAATGTTAACAAGACAAAATAAATGTCACGCAACTT

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**FIGURE 370**

MVSWGRFICLVVVTMATLSLARPSFSLVEDTTLEPEEPPTKYQISQPEVYVAAPGESLEVRCCLKDAAVISWTKD  
GVHLGPNNRVTVLIGEYLQIKGATPRDSGLYACTASRTVDSETWYFMVNVTDAISSGDEDDTDGAEDFVSENSNN  
KRAPYWTNTEKMEKRLHAVPAANTVKFRCPAGGNPMPTMRWLKNGKEFKQEHRIGGYKVRNQHWSLIMESVVP  
SGDGLPYLKV LKVLKAAGVNTTDDKEIEVLYIRNVTFEDAGEYTCLAGNSIGISFHSAWLTVLPAPGREKEITAS  
PDYLEIAIYCIGVFLIACMVVTVILCRMKNNTTKKPDFSSQPAVHKLTAKRIPLRRQVSAESSSSMNSNTPLVRITT  
RLSSTADTPMLAGVSEYELPEDPKWEFPRDKLTGKPLGEGCFGQVVMMAEAVGIDKDKPKEAVTVAVKMLKDDAT  
EKDLSDLVSEMEMMKMIGKHKNIINLLGACTQDGPLYVIVEYASKGNLREYLRARRPPGMEYSYDINRVPEEQMT  
FKDLVSCTYQLARGMEYLASQKCIHRDLAARNVLVTENNVMKIADFGLARDINNIDYYKTTNGRLPVKWMMAPEA  
LFDRVYTHQSDVWSFGVLMWEIFTLGGSPYPGIPVEELFKLLKEGHRMDKPANCTNELYMMMRDCWHAVPSQRPT  
FKQLVEDLDRILTTLTNEEYLDLSQPLEQYSPSYPDTRSSCSSGDDSVFSPDPMPYEPCLPQYPHINGSVKT

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**FIGURE 371**

GAAGGAAAAAGAGCAACAGATCCAGGGAGCATTACCTGCCCTGTCTCCAAACAGCCTTGTGCCTCACCTACCCC  
CAACCTCCCAGAGGGAGCAGCTATTTAAGGGGAGCAGGAGTGCAGAACAAACAAGACGGCCTGGGGATACAACTC  
TGGAGTCCTCTGAGAGAGCCACCAAGGAGGAGCAGGGGAGCGACGGCCGGGGCAGAAGTTGAGACCACCCAGCAG  
AGGAGCTAGGCCAGTCCATCTGCATTTGTCACCCAAGAACTCTTACCATGAAGACCCTCCTACTGTTGGCAGTGA  
TCATGATCTTTGGCCTACTGCAGGCCCCATGGGAATTTGGTGAATTTCCACAGAATGATCAAGTTGACGACAGGAA  
AGGAAGCCGCACTCAGTTATGGCTTCTACGGCTGCCACTGTGGCGTGGGTGGCAGAGGATCCCCAAGGATGCAA  
CGGATCGCTGCTGTGTCACTCATGACTGTTGCTACAAACGTCTGGAGAAACGTGGATGTGGCACCAAATTTCTGA  
GCTACAAGTTTAGCAACTCGGGGAGCAGAATCACCTGTGCAAAACAGGACTCCTGCAGAAGTCAACTGTGTGAGT  
GTGATAAGGCTGCTGCCACCTGTTTTGCTAGAAACAAGACGACCTACAATAAAAAGTACCAGTACTATTCCAATA  
AACACTGCAGAGGGAGCACCCCTCGTTGCTTGAGTCCCCCTCTTCCCTGGAAACCTTCCACCCAGTGCTGAATTTCC  
CTCTCTCATACCCTCCCTCCCTACCCTAACCAAGTTCCCTTGGCCATGCAGAAAGCATCCCTCACCCATCCTAGAG  
GCCAGGCAGGAGCCCTTCTATACCCACCCAGAATGAGACATCCAGCAGATTTCCAGCCTTCTACTGCTCTCCTCC  
ACCTCAACTCCGTGCTTAACCAAAGAAGCTGTACTCCGGGGGGTCTCTTCTGAATAAAGCAATTAGCAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 372**

MKTLALLAVIMIFGLLQAHGNLVNFHRMIKLTTGKEAALS YGFY GCHCGVGGRGSPKDATDRCCVTHDCCYKRLE  
KRGCGTKFLSYKFSNSGSRITCAKQDSCRSQLCECDKAAATCFARNKTTYNKYQYYSNKHCRGSTPRC

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## FIGURE 373A

GCCTGCAGAGAGAGGCACCTTTGCACCACAGACAGATAGCAAGAAGGGAAAGACAGAGAGTGAGAAAAAGAGGAG  
TCAGTCGCTCCTGGGGAAGGGAGAGAGTGAGACTGGGAGAAAGAGAAGCACAGAAAGTGTGTGTAAAACGGAGTA  
AAGAAAGAAAAAATACTACCCTTAAAGCACATTTAAAAAATACTCTGGCAATTCAAGAAAGAAACAG  
GCTACGTTTTAAAGAGCATAGAGACAATGAAAGGCTAAAGAAAATTTTAAATCTCTGCCACAGTCTCATAGGTGC  
TTGGAAATGAAAGTAGAACTGCCTGTCTTTAACGGACTCTGACAGAGAGGGTGAAGGGGAACCAGAGCGCACAAG  
GGAAGTGAAGTCAAGGAGGCAGAGAAGATGGGCATCCTCAGCGTAGACTTGCTGATCACACTGCAAATTCGCCAGT  
TTTTTCTCCAAGTGCCTCTTCTGGCTCTCTATGACTCGGTCTATTCTGCTCAAGCACGTGGTGTCTGTTGAG  
CCGCTCCAAGTCCACTCGCGGAGAGTGCGGGCGCATGCTGACCTCAGAGGGACTGCGCTGCGTCTGGAAGAGCTT  
CCTCCTCGATGCCTACAAACAGGTGAAATTGGGTGAGGATGCCCAATTCCAGTGTGGTGCATGTCTCCAGTAC  
AGAAGGAGGTGACAACAGTGGCAATGGTACCCAGGAGAAGATAGCTGAGGGAGCCACATGCCACCTTCTTGACTT  
TGCCAGCCCTGAGCGCCCACTAGTGGTCAACTTTGGCTCAGCCACTTGACCTCCTTTCAGAGCCAGCTGCCAGC  
CTTCCGCAAAGTGGTGAAGAGTTCTCCTCAGTGGCTGACTTCTGCTGGTCTACATTGATGAGGCTCATCCATC  
AGATGGCTGGGCGATACCGGGGACTCCTCTTTGTCTTTGAGGTGAAGAAGCACCAGAACCAGGAAGATCGATG  
TGCAGCAGCCCAGCAGCTTCTGGAGCGTTTCTCCTTGCCGCCCCAGTGCCGAGTTGTGGCTGACCGCATGGACAA  
TAACGCCAACATAGCTTACGGGGTAGCCTTTGAACGTGTGTGCATTGTGCAGAGACAGAAAATTGCTTATCTGGG  
AGGAAAGGGCCCTTCTCCTACAACCTTCAAGAAGTCCGGCATTGGCTGGAGAAGAATTCAGCAAGAGATGAAA  
GAAACTAGATTAGCTGGTAAAGGTATGATTATAAGAGAGCTTATTGTTTTAAAAAGTTATATAAAGGCAAGGA  
AATTAAGAACTGAATCCATATTTCAACAGAGCCCTATTGGCTTACTGAAAGACAGGAGTTTATCTATCGGAAGAA  
CATGAATCTCTAACAGCTCCATCTTCTTCTACTACTCAAATGGCATTGGGCTGAGTAAGTAACCATATCACCTC  
TCTTCTTAGTAAAAAGCCCTATGTGAAAAGATCCCAAGATGGAGAGGAAGAAACGCTAATTCAGCATGTGTTTCA  
TCTGCATTGAGAAGGAAGTATACATCTGATGCATGCTTTGAGACCAGAAGAAAAGACTTACCTGAATAATTACT  
ACATTAGGGAAGCTACTGTCTACGTTAAGATAAAGGGTATTGCCTTGGCTCTATTTGGCATGGATGGAGCCAGT  
TGGAAAATTCCCAAATATTACAACAAGTCTTGAACCCAGGCCATGTGGTGTAGACGTTGGTGTAAAGGTTAGACC  
TTATGTTAGAGTCATTTCTGATGTTCCAGCTTCTAGCCATGTAGTGTCTCAGTCTTCATACCCAGAAATTATT  
GGTATATTTGTAGATACCGAGAATGATCCCTCAGTCTGAGAGGTTAGAATGATCATCTGTAATCTGAGGGTTAAT  
TTCTAGGCAGGTGGAGAGAGTGGTAAAAAAGAAATGACAAGCTAGGAAAGAGGAGGCAGAAAGATTTGG  
AAAATTCACAGAGTTTACCCTTAAGCTGTAGAGAGTGGGTACATTTGTTAGCCACGGAAACATAGAAACATAC  
ACAAGGCCAGAAAAAGAAAGAGGAGCTCAACTAAAAGTGGCATAGAGAATACACATATAAAAAACAATATATTTGT  
CATATGCTCCTAGAGAGGAGAAAGGGGTGATTGAAAGAAAAAATACTTAAATATTTGTAATTGTGAGGGGTT  
TCTTTTGGAAATAATTACTTTTGAACCATGTATGTGGTATGTATATTTTTCAGTGGGTTAATTATACCCCATGATA  
CCTATTAAAGGAAAAACCAGTGGGTCTGGTGGTGTCTTTTCTCCCATTCCTACAATTTCTATGTGGCCCA  
AGTCATTCCCTAATCTTGGTCTCTATAGCAGTGTCTCTCTGAATGCTGAGCTGAAGAAATTATACGTACATACAC  
ACATACATACATACATAAAATATATGTATATATATTTCTCAGCTGCTGCGGGAGGTAGGTACCATGGCCATTGAG  
CACAGCCTTGATTTCTCCCAAAGTAGGTGAGCTATAGTGAAGAATAGGTGCAAAACAAACAGCTTACTTCCATT  
GCAAAATAGAAGAGGAAGTTAGAGATAATTCGATCAATCATTTTGGAGGCTTTGTTATAAGGCAACCCCG  
GTATATCATGGAATTTCCATTGACATTTGAATTTGGACTTGGATCTTCCCTTGGTCCCATAGCTGAGGTTTAGT  
AATCTAAAGTCCCTATAGTATATGATTATAATGCTATTTTAAAAAATATATATATAAAATATTTTCTTTTAA  
AAATAGACACTATAGTTTACCCATAAGTAATTTTAAAGATTATAGCTCCCAAAAGAAATGGACCAACCACTTTC  
GTATCATAATTTCTTTTGGTAAATATGAGACTATTATGAAATCATAGTATATGATTGTATTTAAAGGTACAATC  
AAAGGATCTTTTGTCCATTCCATTAATAACTGAATAAAAAATAAATAAAATGGATAGAAAAAACTAAAGTTGAA  
AATACATTCTTAACTAGTTGTCTGAAATGAGAAAAGAGTGAGAACTAGGTGTGCAAGAACCAACGTATTTTAT  
TTTATTTTTTAAATGGGAGCAACATATCAGTCGTGTACCAGCTGGTATATTGTGTAAATATTAAGCTCCATTG  
GGACTGATTTTTCTATGGCAACATCAGCTTTCTAATGTTCTAAATTTCTATAAAAACCCACCAAGAAACAAAGC  
AAATTTCTATTCTAATGAGTTGCTGGAAAATCATATTGAGAATAATTATTTTCAGATTCTCAGTTGTTAACTTC  
TACATTCAGGGCTTATCTCTGCCCCATTGATTTTTAACCTCAAATGGTGTGAGATTTACTGTGGAACCCTAA  
AGCAGTAAATAAAAAACCTGGTTGCAGCACATTCACACTGTTGTCCTTAAATTTCCCTTTTTTCTCTATGTAC  
GATAAAGTAACAGTATGTGAGATAAGCCGGTGGGGGATGAGATTAGGCTGAGGCAGTGCTAGTCAACTGGGGGA  
AAAGGATGATGGAATAATCACCCAGTTGTGCTATATTTTTTAAAGAAGGAGGTGCTTTATGTGTGCAGACAATTCT

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**FIGURE 373B**

CCCTGAGGTTAGCCCAATGGAGAAATGAAGCAGAGGAAGGAAACATAGAAAGACATGGGCTATCAGGGAGGAAGA  
TGTTCAATAGAACATGCAAGAATTTCTGGAAGAAAGGCTGTGGAAGGGCCAATGGAGAAAATGAATGGACAAAGC  
TCAGGAATCCCTACGCTATGTAGAATGTTCTTGGTGTATCAGGGTTAAGCCCTGTAATTATGTAACCTATTTAT  
CGCAACATGAATTTTTATGATTTCTTGTGATGTATTCTTTTATGAAATTAACAAGAACTCATTATTTTGAGGTAG  
AGGAAAATCAATGCTTTATCTGATATGCTGAGAAATTATTAGATTGCCAATACTCATGTGCGTTTCATGTGTTTT  
ATAAGGTTTGTTCCTTTGAAGAATTGTAGTCTTAGTCCCACAGGGAAATGTGTATCTATTTATATATCATAGTA  
TAAATCTATGATATATTTATATCATATATAAAAGTCTGAGTCTCTTTCTTAGTCCCTAATCATGTTTCTCCCAT  
AGGCTGTGTTTACATGGAGCTATCGGTTTAGCCTTTTAAGCTTCATTAGCTTGCTCTATTATTGAAATAGTTTCCA  
AGAAATTTTAGATATTATCATAACATCTGGGTCTACTCAAACACTTATTGTTTGAAAGACTTATGTCTTGACCT  
ATCAAAAACCTGACTTTATTTATTGCTTAGTGAAAATACTAGTGGGATCAACAATGATTTTCTTGAATGGGCATGA  
ATGGAGATGCCCGCACAGTAATGTAGAAATGTTTCATACAGCTATTAAATGTAAGTACCTCCTTAGAGGCAGA  
TTAGTAACTGTTTCTTACTTTGTATAGCTAAGTGACAGTCACTTAACTTACATGACTTTCTTTTTTTCACATTGGGT  
CTCTGGTCTGTGCTTTCACCTCATTATAGCACGCTCCTTGATTTTTGGTAGTATCAACTCCCAGTGATCTG  
TTCAGTTAAGTCTTCTCCCGTTAACCAGGAAGTGCTTATTCTCTCATCACAGTGGGAAGAATAGCCTATTGTCT  
TTCATTTTGCCTGAGTGTATTTTACTATTTGGGCTCTGAAATAAAAATTATGAAATATGGTGAGGTCACATGTTG  
GTGCTGCCTTGCTGCATAAAATTCTAGGAGGGCAGGTTAGGAGACAGTTATGTATGGCCTTTTCGGGAAAATCAA  
AGGGTGGGATTACAAGGGTGTTCCTCAGGCATGCCCTATGGGCCCTATGTGGAAGCAAGAAGAATTGACTGATT  
TACAGGACTTCTCTTTATGTCAATCTTAAGAGGATGGATGAATCTGGACATTTGTTCCACCCGACCTCTGACTGA  
TGGTTTGGAAAATAACTTTAATTAGGATCATATGACCATTGAAAAAGGAAAAATGTAGACTCTGACTTCCGTCCC  
ACTGAAGGATTAATGAAAACCTTTACTAGCATTAGAGCTTTTCAGAACATCCCCACTGTCTGTCTCAGCAG  
TGGAGACTGCAAGTAAGGCTTTTAAATTTTAGGAGGTTTTTTTTTTTTTTTTTTTTTCCCCTAAATGGTATGGCCA  
AAAGTCAGAGTTAAAATATATATAGTTAGATTCCAACCTCCTCCTCACTCTAAAAATAGAATCCAAACCCACTC  
TTCATATATGCTTCCAGAATGGGGCTTAAGTACCAATCTCTGCTTTGCAATGGGCACAATCTTGGTCATGTCTTG  
AGGCTCTCTAAGAAAAGAGAGGATCTAGGATGGGAGAGCTAGAAAGTTGCTAACTGGGAAGAACAAGGCCCTGAG  
GGGTTGGTCTACCAATCTGGGAAGATTTGAAAACAACTTCTCGCAACTGAAGGAAGGCTGAAGGCTGCTGCAAG  
TCATTGAGTGACTTTAGGATGAGCAAAACATTGGGCCACTTCCTAATGCCCTATGTGTATAGTACCAGAAGCAAG  
GTCTCAGACTTAACAGACCCAGCTCTGTTCCAAGGTGAGTCTGAACCAATAGAAAGCAAACATGTGCAGATATCC  
AAACAAGACTGCTCATGCAAGTCGGGGCTGGCTACCCGTCTTAGGCAGCAACAGCAGAGCTCCAGGGAGCTTATT  
CAATATTTACTGAGACTTCGAAGACCCAGCAGATGTTTAAATGAAGTCACTATTTTGGCTCAAACCCTCCACTTCT  
CCCCCTCCCCCTCAAAAAGCCAAACAGGTAAACACATAAATGAAAGAAACCCACAGAAGGGGATGGGAAATAAAGAA  
AATTCTCTCAAGACTTCTCCAGGCCCATGTCACTGGTCAGCGTGGTTTTTATGTGTATTAGGATTGGGGGATGTG  
AAGAAATAAGTATCCAGTACTTTATAACCAAAGCAATTAAATGATATTGGGGTAGGGAATGTTGGCCAGTTTTGT  
TTAGTTTTGCCATCACATTGTCACCCAGACCTCACCTAGCCCCAAGTAATCGGGCGCCCCGAAGAGGGAGACAGA  
GATGTGCCAGAGTTGACCCAGTGTGCGGATGATACTACTGACGAAAGAGTCAATCGACCTCAGTTAGTGGTTGGA  
TGTAATCACATTAGTTGCTCTCCCCATCTTTGTCTCCCTGGCAAGGAGAATATGCGGGACATGATGCTAAGAG  
CCCTGGGTAAATGTGGTGAGAATGCACGCTGCATATGCTACACATATGTGCTTCTCAGTTGCAGAAAATGAACT  
GCTTTGGGAGATTATCAGTAGAAAGAGTGTTATCATATTGGTGCTGAGTGCTATGTGTGCTTATACAATTTGTTT  
TTGTATTTTAAATAAACTTTGAATAAAAGAATAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 374**

MGILSVDLLITLQILPVFFSNCLFLALYDSVILLKHVVLLLSRSKSTRGEWRRMLTSEGLRCVWKSFLLDAYKQV  
KLGEDAPNSSVVHVSSTEGGDNSGNGTQEKIAEGATCHLLDFASPERPLVVNFGSATXPPFTSQLPAFRKLVVEEF  
SSVADFLLVYIDEAHPSDGWAIPGDSSLSFEVKKHQEQEDRCAAQQLLERFSLPPQCRVVADRMNNANIAYGV  
AFERVCIVQRQKIAYLGKGPFSSYNLQEVHRHWLEKNFSKRXXKTRLAG

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**FIGURE 375A**

CTCTCCCAACCGCCTCGTCGCACTCCTCAGGCTGAGAGCACCGCTGCACTCGCGGCCGGCGATCGGGGACCCCGG  
CGCGGCCGCTCCGCTTTCGTCCCTGGGCCTCTGTGCCCTGGTGCTGGCGCTGCTGGGCGCACTGTCCGCGGGCGC  
CGGGGCGCAGCCGTACCACGGAGAGAAGGGCATCTCCGTGCCGGACCACGGCTTCTGCCAGCCCATCTCCATCCC  
GCTGTGCACGGACATCGCCTACAACCAGACCATCCTGCCCAACCTGCTGGGCCACACGAACCAAGAGGACGCGGG  
CCTCGAGGTGCACCAAGTTTACCCGCTGGTGAAGGTGCAGTGTTCTCCCGAACTCCGCTTTTTCTTATGCTCCAT  
GTATGCGCCCGTGTGCACCGTGCTCGATCAGGCCATCCCGCCGTGTGTTCTCTGTGCGAGCGCGCCCGCCAGGG  
CTGCGAGGCGCTCATGAACAAGTTTCGGCTTCCAGTGGCCCGAGCGGCTGCGCTGCGAGAACTTCCCGGTGCACGG  
TGCGGGCGAGATCTGCGTGGGCCAGAACACGTGCGACGGCTCCGGGGGCCAGGCGGCGGCCCCACTGCCTACCC  
TACCGCGCCCTACCTGCCGGACCTGCCCTTACCGCGCTGCCCCGGGGCCCTCAGATGGCAGGGGGCGTCCCGC  
CTTCCCCCTTCTCATGCCCCGTGAGCTCAAGGTGCCCCCGTACCTGGGCTACCGCTTCTGGGTGAGCGCGATTG  
TGGCGCCCCGTGCGAACCAGGGCCGTGCCAACGGCCTGATGTACTTTAAGGAGGAGGAGAGGCGCTTCGCCCCGCT  
CTGGGTGGGCGTGTGGTCCGTGCTGTGCTGCGCCTCGACGCTCTTTACCGTTCTCACCTACCTGGTGGACATGCG  
GCGCTTCACTACCCAGAGCGGCCCATCATCTTCTGTGCGGCTGCTACTTTCATGGTGGCCGTGGCGCACGTGGC  
CGGCTTCTTCTAGAGGACCGCGCCGTGTGCGTGGAGCGCTTCTCGGACGATGGCTACCGCACGGTGGCGCAGGG  
CACCAAGAAGGAGGGCTGCACCATCCTCTTCATGGTGTCTACTTCTTCGGCATGGCCAGCTCCATCTGGTGGGT  
CATTCTGTCTCTCACTTGGTTCTTGGCGGCCGGCATGAAGTGGGGCCACGAGGCCATCGAGGCCAACTCGCAGTA  
CTTCCACCTGGCCGCGTGGGCGGTGCCCGCCGTCAAGACCATCACTATCCTGGCCATGGGCCAGGTAGACGGGGA  
CCTGCTGAGCGGGGTGTGCTACGTTGGCCTCTCCAGTGTGGACGCGCTGCGGGGCTTCGTGCTGGCGCCTCTGTT  
CGTCTACCTCTTCATAGGCACGTCCTTCTTGCTGGCCGGCTTCGTGTCCCTCTTCCGTATCCGCACCATCATGAA  
ACACGACGGCACCAAGACCGAGAAGCTGGAGAAGCTCATGGTGCATCGGCGTCTTCAGCGTGCTCTACACAGT  
GCCCCCACCATCGTCCTGGCCTGCTACTTCTACGAGCAGGCCTTCCGCGAGCACTGGGAGCGCACCTGGCTCCT  
GCAGACGTGCAAGAGCTATGCCGTGCCCTGCCCGCCCGGCCACTTCCCGCCCATGAGCCCCGACTTCACCGTCTT  
CATGATCAAGTACCTGATGACCATGATCGTCGGCATCACCCTGGCTTCTGGATCTGGTTCGGGCAAGACCCTGCA  
GTCGTGGCGCCGCTTCTACCACAGACTTAGCCACAGCAGCAAGGGGGAGACTGCGGTATGAGCCCCGGCCCCCTCC  
CCACCTTTCCACCCCCAGCCCTCTTGCAAGAGGAGAGGCACGGTAGGGAAAAGAACTGCTGGGTGGGGGCCTGTT  
TCTGTAACTTTCTCCCCCTCTACTGAGAAGTGACCTGGAAGTGAGAAGTTCTTTGCAGATTGGGGCGAGGGGTG  
ATTTGGAAGAAAGACCTGGGTGGAAAGCGGTTTGGATGAAAAGATTTAGGCAAAGACTTGCAGGAAGATGATG  
ATAACGGCGATGTGAATCGTCAAAGGTACGGGCCAGCTTGTGCCTAATAGAAGGTTGAGACCAGCAGAGACTGCT  
GTGAGTTTCTCCCGCTCCGAGGCTGAACGGGGACTGTGAGCGATCCCCCTGCTGCGAGGGCGAGTGGCCTGTCCA  
GACCCCTGTGAGGCCCCGGGAAAGGTACAGCCCTGTCTGCGGTGGCTGCTTTGTTGGAAGAGGGAGGGCCTCCT  
GCGGTGTGCTTGTCAAGCAGTGGTCAAACCATAATCTCTTTTACTGGGGCCAACTGGAGCCCAGATGGGTTAA  
TTTCCAGGGTCAGACATTACGGTCTCTCCTCCCCCTGCCCTTCCGCTGTTTTCTCCTCCCGTACTGCTTTCAGG  
TCTTGTAAATAAGCATTGGAAGCTTGGGAGGCCTGCCTGCTAGAATCCTAATGTGAGGATGCAAAAGAAATG  
ATGATAACATTTTGAGATAAGGCCAAGGAGACGTGGAGTAGGTATTTTGTACTTTTTCTATTTTCTGGGGAAGG  
CAGGAGGCAGAAAGACGGGTGTTTTATTGGTCTAATACCCTGAAAAGAAAGTATGACTTGTGCTTTTCAAAAC  
AGGAATGCATTTTTCCCTTGTCTTGTGTTGTAAGAGACAAAAGAGGAAACAAAAGTGTCTCCCTGTGGAAAGGCA  
TAACTGTGACGAAAGCAACTTTTATAGGCAAAGCAGCGCAAATCTGAGGTTTCCCGTTGGTTGTTAATTTGGTTG  
AGATAAACATTTCTTTTAAAGAAAAGTGAAGAGCAGTGTGCTGTACACACCGTTAAGCCAGAGGTTCTGACTT  
CGCTAAAGGAAATGTAAGAGGTTTTGTTGTCTGTTTTAAATAAATTTAATTCGGAACACATGATCCAACAGACTA  
TGTTAAATATTTAGGGAAATCTCTCCCTTCACTTTTCTTGTCTATAAGCCTATATTTAGGTTTCTTTTCT  
ATTTTTTCTCCATTTGGATCCTTTGAGGTAAAAAACATAATGTCTTCAGCCTCATAATAAGGAAAGTTAAT  
TAAAAAAGCAAGAGCCATTTTGTCCTGTTTTCTTGGTTCCATCAATCTGTTTATTAACATCATCCATA  
TGCTGACCTGTCTCTGTGTGGTTGGGTGGGAGGCGATCAGCAGATACCATAGTGAACGAAGAGGAAGGTTTGA  
ACCATGGGCCCCATCTTTAAAGAAAGTCATTAAAGAAAGGTAAACTTCAAAGTGATTCTGGAGTTCTTTGAAATG  
TGCTGGAAGACTTAAATTTATTAATCTTAAATCATGTACTTTTTTCTGTAATAGAACTCGGATTCTTTTGCATG  
ATGGGGTAAAGCTTAGCAGAGAATCATGGGAGCTAACCTTTATCCACCTTTGACACTACCTCCAATCTTGCAA  
CACTATCCTGTTTCTCAGAACAGTTTTTAAATGCCAATCATAGAGGGTACTGTAAAGTGACAAGTTACTTTATA  
TATGTAATGTTCACTTGAGTGGAAGTGTCTTTTACATTAAAGTTAAATCGATCTTGTGTTTCTTCAACCTTCAA



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**FIGURE 375B**

AACATCTCATCTGTCAGATTTTTAAACTCCAACACAGGTTTTGGCATCTTTTGTGCTGTATCTTTTAAGTGCA  
TGTGAAATTTGTAAAATAGAGATAAGTACAGTATGTATATTTTGTAATCTCCCATTTTTGTAAGAAAATATATA  
TTGTATTTATACATTTTTACTTTGGATTTTTGTTTTGTTGGCTTTAAAGGTCTACCCCACTTTATCACATGTACA  
GATCACAATAAATTTTTTTAAATAC

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**FIGURE 376**

MRDPGAAAPLSSLGLCALVLALLGALSAGAGAQPYHGEKGISVPDHGFCQPIISIPLCCTDIAYNQITILPNLLGHTN  
QEDAGLEVHQFYPLVKVQCSPELRFFLCSMYAPVCTVLDQAIPPCRSLCERARQGCEALMNKFGFQWPERLRNEN  
FPVHGAGEICVGQNTSDGSGGPGGGGTAYPTAPYLPDLPTALPPGASDGRGRPAFFPSCPRQLKVPPYLYRFL  
GERDCGAPCEPGRANGLMYFKEEERRFARLWVGWVSVLCCASTLFTVLTLYLDMRRFSYPERPIIFLSGCYFMVA  
VAHVAGFLLDRAVCVERFSDDGYRTVAQGTKKEGCTILFMVLYFFGMASSIWWVILSLTWFLAAGMKWGHEAIE  
ANSQYFHLAAWAVPAVKTTITILAMGQVDGDLISGVCYVGLSSVDALRGFVLAPLFVYLFIGTSFLLAGFVSLFRI  
RTIMKHDGKTEKLEKLMVRIGVFSVLYTVPATIVLACYFYEQAFREHWERTWLLQTCKSYAVPCPPGHFPPMSP  
DFTVFMIKYLMTMIVGITTGFWIWSGKTLQSWRRFYHRLSHSSKGETAV

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**FIGURE 377**

TCCAGCGAACAGCCCCGCTTCTAACCCGAGATGCTGCTGCCGGCGCCCCGCGCTCCGCCGCGCCCTGCTGTCCCGC  
CCCTGGACCGGGGCGGCGCTGCGGTGGAAGCACACCTCCTCCCTGAAGGTGGCCAACGAGCCCGTCTTAGCCTTC  
ACGCAGGGCAGCCCTGAGCGAGATGCCCTGCAAAAGGCCTTGAAGGACCTGAAGGGCCGGATGGAAGCCATCCCA  
TGCGTGATGGGGGATGAGGAGGTGTGGACGTGCGACGTGCAGTACCAAGTGTGCGCTTTTAACCATGGACATAAG  
GTGGCCAAGTTCTGTTATGCAGACAAGAGCCTGCTCAACAAAGCCATTGAGGCTGCCCTGGCTGCCCGGAAAGAG  
TGGGACCTGAAGCCTATTGCAGACCGGGCCAGATCTTCTGAAGGCGGCAGACATGCTGAGTGGGCGCGCAGG  
GCTGAGATCCTCGCCAAGACCATGGTGGGACAGGGTAAGACCGTGATCCAAGCGGAGATTGACGCTGCAGCGGAA  
CTCATCGACTTCTTCCGGTTCAATGCCAAGTATGCGGTGGAGCTGGAGGGGCAGCAGCCCATCAGCGTGCCCCCG  
AGCACCAACAGCACGGTGTACCGGGTCTGGAGGGCTTCGTGGCGGCCATCTCGCCCTTTAACTTCACTGCAATC  
GGCGGCAACCTGGCGGGGGCACCGGCCCTGATGGGCAACGTGGTCTATGGAAGCCAGTGACACTGCCATGCTG  
GCCAGCTATGCTGTCTACCGCATCCTTCGGGAGGCTGGCCTGCCCCCAACATCATCCAGTTTGTGCCAGCTGAT  
GGGCCCCCTATTTGGGGACACTGTCAACAGCTCAGAGCACCTCTGTGGCATCAACTTCACAGGCAGTGTGCCACC  
TTCAAACACCTGTGGAAGCAGGTGGCCAGAACCTGGACCGGTTCCACACCTTCCCACGCCTGGCTGGAGAGTGC  
GGCGGAAAGAACTTCACTTTCGTGCACCGCTCGGCCGACGTGGAGAGCGTGGTGAGCGGGACCTCCGCTCAGCC  
TTCGAGTACGGTGGCCAGAAGTGTTCGCGCTGCTCGCGTCTCTACGTGCCGCACTCGCTGTGGCCGCAGATCAAA  
GGGCGGCTGCTGGAGGAGCACAGTCGGATCAAAGTGGGCGACCCTGCAGAGGATTTTGGGACCTTCTTCTCTGCA  
GTGATTGATGCCAAGTCTTTTGGCCGTATCAAGAAGTGGCTGGAGCACGCGCGCTCCTCGCCAGCCTCACCATC  
CTGGCTGGGGGCAAGTGTGATGACTCCGTGGGCTACTTTGTGGAGCCCTGCATCGTGGAGAGCAAGGACCCCTCAG  
GAGCCCATCATGAAGGAGGAGATCTTCGGGCCTGTACTGTCTGTGTACGTCTACCCGGACGACAAGTACAAGGAG  
ACGCTGCAGCTGGTTGACAGCACCAACAGCTATGGCCTCACGGGGGCGAGTGTCTCCAGGATAAGGACGTCTGT  
CAGGAGGCCACAAAGGTGCTGAGGAATGCTGCCGGCAACTTCTACATCAACGACAAGTCCACTGGCTCGATAGTG  
GGCCAGCAGCCCTTTGGGGGGGCCGAGCCTCTGGAACCAATGACAAGCCAGGGGGCCACACTACATCCTGCGC  
TGGACGTGCGCGCAGGTCTCAAGGAGACACATAAGCCCCCTGGGGGACTGGAGCTACGCGTACATGCAGTGAAGCC  
CCTCTCGGGCTCCACCGTCCAGCTGTCTGTCCGTCCAGGTGGCCGACCTCACTGCACAGACCCCACTCCAGCCCC  
TCCACCCCTTCTTCATGCACAGCTGCCTTTCTATAATCCGGGCTTGACTCCCTTCTTACCACTGTATTCTGGCCT  
CTCCCATGCCCTCAGGCTCTGGTTTGGAGATCGTGCTGGGGAGGAACATGGCCACTACCCCTTATCCCATCGGCCAT  
GTGGGAGGTATGACCCCTGGTGCCTGGCAGGTTCTCCCTCTGCCCTCCACTGGGCCCAGTGGCTCAGGGACCTGGG  
GAAAGGAGATGGAGCAGCTCTTGGGATCCTTTGGGGAAAAGGAGGCCATTCTGGGCCCCTTGGAACCTCACCA  
CTCACAGAGGCTCCTGGCCTTGATCCCTGCCCTCCAGGTGTCCAGGGTAAAGTGTAACCTCAGACTGACCTGTGG  
GGCACAGGGGGCACCAGCTGGCCTTGCCCTCTCTGGTCTGGGCTGTCTACCTTCCTCACTGTATCTTTGCCCAGA  
CCCACCTGGGGCCAGTAGGCCTGTCCCCAGCCACACACCTTAGATGCTGGCATGCCTTACTCCAGGTGCCTGTGTT  
TGGCCGAGGCCTGTGTGATTCCCGGTCTGCACCATATGGCGGGGTGGGGGGCCGCTGGAGGCCACCTGCCAAGG  
CGTGGGATGGGATGGTCTGCCGTTTAGGCCGTGATTCTGGAAAACCTTGATGGGCCTTCGTCTATGTACAGC  
CTTCCCTTTGATCCTCAGGCCCTACCTGTAGAGACCTCCACTCCTAGAGCCAGTCTCAGGGTCTGGGATTTCCCT  
GCAGGAGCTCAGCCACCACTGTGCCATGGTGACACAGGCCAAGGCAGACATTGGCCCTCCCTTCTCCCAGCCCCC  
AGAGGCCTGGCCTTGGGTTCTGTACGATGGGCCGAGGACGTTGCCTGTAGAATCCTCCTCTGCCTGGGAGTGGCT  
CTGTGTGGACAGTCCCTCACTGGCCCATTTCTTTTTTACGCGAGCCAATCTGTGACCACGATTCTCCACAGA  
TGCCTCCTGCTTGGATTCTGAGTGGTCAGAGATCTGTAAAGCATGACTTTCAAGGATGGTTCTTAGGGGACTGTG  
TAAAGTGTGGGTCTTCTCCAGGATGCCTGCATGGGACCCACCCGGAGCTGGTGTGGCCATTCCCCGAAGTGC  
CACTGGCCCATGGATGGGGGTGGGTGCTGGTGCACCTGGGCTGGGTGTGGGTCTGTGTCTTCCAGGATCTGTG  
TCATTTCCCATGAGGGGCCGGGGCAGGTGGCTGGGTGGGGGCACAGGCTGGAGTATTCTTAGTTCTACTGGTTCT  
ACACTGTGAGGTGGCAATGGGATTGCTCAGATGCCACCCAATAAAATGCCTGTTACTT

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**FIGURE 378**

MLLPAPALRRALLSRPWTGAGLRWKHTSSLKVANEPVLAFTQGSPERDALQKALKDLKGRMEAIPCVMGDEEVWT  
SDVQYQVSPFNHGHKVAKFCYADKSLNKAIEAALAARKEWDLKPIADRAQIFLKAADMLSGPRRAEILAKTMVG  
QGKTVIQAEIDAAAELIDFFRFNAKYAVELEGQQPISVPPSTNSTVYRGLEGFVAAISPFNFTAIGGNLAGAPAL  
MGNVVLWKPSDTAMLASYAVYRILREAGLPPNIIQFVPADGPLFGDTVTSSEHLCGINFTGSVPTFKHLWKQVAQ  
NLDRFHFTFRLAGECGGKNFHFVHRSADVESVSGTLRSAFEYGGQKCSACSRLYVPHSLWPQIKGRLL EEHSRI  
KVGDP AEDFGTFFSAVIDAKSFARIKKWLEHARSSPSLTILAGGKCDDSVGYFVEPCIVESKDPQEPIMKEE IFG  
PVL SVYVYPDDKYKETLQLVDSTTSYGLTGAVFSQDKDVVQEATKVL RNAAGNFYINDKSTGSIVGQQPF GGARA  
SGTNDKPGGPHYILRWTSPQVIKETHKPLGDWSYAYMQ

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**FIGURE 379**

CGGCCGGAGTGCGGCGCTGGGCGGAAGCTACCAATGCGCGCCGAGAGAAAAGACAAAGTTGTCCAAGAATCTGCTGC  
GCATGAAGTTTATGCAAAGGGGACTGGACTCAGAAAACCAAGAAACAACCTAGAAGAAGAAGAAAAGAAAATCATT  
GTGAAGAGCACTGGTACTTGGATTTGCCAGAGCTTAAAGAGAAAGAGAGTTTCATAATAGAAGAGCAGAGTTTCT  
TACTATGTGAAGATCTTCTCTATGGAAGAATGTCATTCAGAGGATTTAATCCTGAGGTTGAGAAATTGATGCTTC  
AGATGAATGCTAAGCACAAAGCAGAAGAAGTTGAAGATGAAACAGTAGAGCTTGATGTGTCAGATGAAGAGATGG  
CTAGAAGATATGAGACCTTGGTGGGGACAATTGGGAAAAAGTTTGCCAGAAAGAGAGACCATGCCAATTATGAAG  
AAGATGAAAATGGAGACATCACACCAATTAAAGCAAAGAAGATGTTCTTAAAGCCCCAGGATTAAAGATGGATGCC  
TTAAGCGATGGCCAGGGGTGCTTGGTGGAAGTCAGCAGGGCATCTGGAGCTCATCCCAATGGTGTCTCTATAGT  
TATTAATACTGTAACGTTTACTTGTAAGAGATTATCATTTTAGAAACATGCTGTTTTTGAACAGATGTGTGAT  
GGATGTTGTACATCCTTTGCTTCTTGGTATTCATTCAGAGTGGATTTTTAGCCCCTGATCTACAAATGTACATTG  
TTACAGGGCTGCTTCCTAAAGATTTTTTTTACCTCAGGTTTCTCTTAATATAGTTCTCCAGTCACTGACCTTGAA  
TTGACTTACATAAACTACTGCCAATGTTTAAATTGCCCTTATGTTTATGTTTATTATGTCAAGCCAATTTCGTACA  
TACAATTTGGAATCAAGTGTCTATAAGAATTTATTATATAAATTTATCAAGAATAAAAAATGCCTCTCCAGCCTTAA  
GTATTTACATGCTCCAGGTCATTGTCAGTTTATGGTATTATGTTGTTTTATTTAAAGCATTGAATTGATAGAAA  
AATTGCTCTGTAATAAAAATCTACTTTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 380**

MAAERKTKLSKNLLRMKFMQRLDSETKKQLEEEEEKKIISEEHWYLDLPKELKESFIIEEQSFLLCEDLLYGRM  
SFRGFNPEVEKLMLOMNAKHKAEEVEDETVELDVSDEEMARRYETLVGTIGKKFARKRDHANYEEDENGDIPIK  
AKKMFLKPQD

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**FIGURE 381A**

GCTGAAGTGTTCGACCAGCAGGAGGTTTTCTCTCAGCCCCTCGCTGCATCCAGATCAGCTCACCCCGCGCCCT  
TTCTGCCCCACCAGGACTCTGATAGCCCCTGGCAGCCACAGCCCATTGTTGCCAAGATGTCTAGAGTAGCCAAATA  
TCGCCGGCAGTGAGTGAAGACCCCGACATCGACAGCCTGCTGGGACCCTGTCTCCCGAGGAGATGGAGGAGCTGG  
AGAAGGAGCTGGACGTGGTGGACCCAGACGGGAGTGTTCCTGGGGCTGCGGCAGAGAAACCAGACGGAGAAAC  
AGTCCACGGGTGTGTACAACCGGGAGGCCATGCTCAACTTCTGTGAAAAGGAGACCAAGAACTTATGCAGAGGG  
AGATGTCCATGGATGAAAGCAAGCAAGTGGAGACCAAGACAGATGCCAAGAATGGACAGGAAAGGGGCAGAGATG  
CCAGCAAAAAGCCCTGGGCCCCAGACGGAACCTCAGATCTGGGGAAGGAGCCAAAGAGGGGTGGTTTAAAGAAAA  
GCTTCTCTAGAGACAGAGATGAAGCTGGTGGCAAGAGTGGCGAGAAGCCCAAGGAGGAGAAGATCATCCGGGGCA  
TTGACAAGGGCCGGGTGAGGGCTGCAGTGGATAAGAAGGAGGCAGGGAAGGATGGGAGAGGAGAGGAGAGGGCAG  
TGGCCACCAAGAAGGAAGAGGAGAAGAAAGGGGGTGACAGGAACACAGGCTTGAGCAGGGACAAGGATAAAAAGA  
GAGAGGAGATGAAGGAGGTGGCCAAGAAAGAGGATGATGAGAAGGTAAAAGGGGAGCGTAGGAACACAGACACCA  
GAAAAGAGGGTGAGAAGATGAAAAGAGCAGGTGGGAACACAGACATGAAAAGGAGGATGAGAAGGTAAAAGAG  
GAACTGGGAACACAGACACCAAAAAGGACGATGAAAAGTCAAGAAGAATGAACCCTTACATGAAAAGGAAGCCA  
AGGATGACAGCAAGACCAAAACACCCGAGAAACAGACGCCCAGTGGCCCCACCAAGCCCTCTGAAGGACCGGCCA  
AGGTGGAGGAGGAGGCAGCTCCCAGCATATTTGATGAGCCTCTGGAGAGAGTGAAGAACAATGACCCCGAGATGA  
CTGAGGTGAACGTCAACAACCTCAGACTGCATCACAATGAGATCTTGGTCCGGTTTACTGAGGCTCTGGAGTTCA  
ACACTGTGGTTAAGCTGTTGCGCTTGGCCAACACGCGAGCCGATGACCACGTGGCCTTTGCCATTGCCATCATGC  
TCAAGGCCAACAAAGACCATCACCAGCCTCAACCTGGACTCCAACCACATCACAGGCCAAAGGCATCCTGGCCATCT  
TCCGGGCCCTCTCCAGAACAACACGCTGACCGAGCTCCGCTTCCACAACCAGCGACACATCTGTGGAGGCAAGA  
CGGAGATGGAGATCGCCAAGCTGCTGAAGGAGAATACCTCCCTGCTCAAGCTGGGCTACCATTTTGAGCTGGCCG  
GGCCCCGAATGACTGTACCAATCTGCTCAGCCGCAACATGGACAAGCAGAGACAAAAGCGGCTGCAGGAGCAAA  
GGCAGGCACAGGAAGCCAAGGGAGAGAAGAAGGATCTGCTGGAGGTACCCAAGGCCGGGGCCGTGGCTAAGGGCT  
CCCCAAAACCTTCACCTCAACCATCTCCAAAGCCCTCTCCAAAGAACTCACCCAAAAAGGGGGTGCTCCAGCTG  
CCCCACCACCCCTCCCTTGGCTCCACCCCTTATCATGGAGAACCTGAAGAATTCACCTCTCACCAGCTA  
CCCAGAGGAAGATGGGAGACAAAGTCCCTGCCAGGAGAAGAACTCCCGTGACCAGCTATTGGCTGCCATCC  
GCTCCAGCAACCTCAAGCAGCTCAAGAAGGTGGAAGTGCCCAAACTGCTTCAGTACGACCAGGCTGCCAGGCACC  
ATCTGCCAATGCCATGACTGCTCAGGCCTCACCTCCCAGGGCTACACAGACCCTGCCCCACCCCATCCCTGGCTGA  
CCTGCTGTGGATGTCCCTATTCTGCCATGGGAGCGTCCAGGCCTGGGTACAGCTCAAGGAAGGATGCCTTATCTC  
TTCTCACTTTCTTTCTTGTCTCTGAGGCTCTCCAAATTTTGCTTTAGTACATGGAGCTCAGGTTTCTGGACAA  
GAAGAGTCTTTTAGCACATCACTGAGAAGATGGCACTGTCCAGGGCCCATGTAGCTGGCAAGCTGCAAAAGGCC  
TGTGATCCAGGAAGATGTCCACAGGGACCACATCCACCCAGCCCCACTGCCCTCCAGGGCCAGGATTTCAGGC  
CTCTGAGGAGCCACGGGGCAAAGCTGCTGGGCCAGTGGCACTCTGTGTGGGAAAATGGCAGAAAGATGGAGAGG  
CATGGGGGGCCAAAGGGGAGCGTGGGGAGGGGCTGAGGATACCCCAAAGTCCAGGCTAATTAGAGGATGTGGCAG  
GGCAGTGGCCTGGATGCACAGTGCCTGATGGGAGTAGGCTCCAGACAGGAGGAGTGGGACAGACAGCAGCTGGA  
CTTGAAGGTTTGATGCCAAAGCAGACATTTTCTCACACCCACCTGCTGCTGTATGAATAGCTGTGTATCTGTTT  
TTCCATAAGATTTTGATAATATATACAAACCTTTAGCTGTGAATGGCTGTGCCCCACCTGTTGTCTGAACTGTG  
AGTCTGATCCTAACCTGGGCTCCCTGGAGGACTCTAGAAGCTCAGGTTCCCTGCCACACTATTGAGTTGGCC  
AAGAAATAAATTCACATCCTCAGAAAGTGCAGCATGGAGGAAAATCTGAACCTAAGCAGAAGACTCTCCACTGA  
CCTGGTTGTCCAGGTCTAGAAGGCCAGGCCTCTACTAGGTCTGCTCCTGAACCAGTCCCTGCTGCCTGGAGTCAGT  
AGCCAGAGTTGTTCTCAGGGGTGCTGGGGCAGAGTGGAGCCCAGGGTGTGGGATGGCTATATTAGGCATGTTCA  
GGGATGCTCATTCCATGACTCTGCCTAACCATGGGCTCAGGGCCAGGTCTCACAGCAGTCACAGGCCCAGGAAG  
GCGGCAGGCAGAGAAGTGGAGTGAATTTGGAGAATAGCACCCATATCTGTGTGCCCTAGGGCTCAGAGGGGCC  
TCATCTTCCCCAGCCCTCCCCACCTGCTCACCATTCCACTTCTGCCCCAACTGCAGGAATGCTGACAATGCTG  
CCATGCCCAACCATCGGGTGTAGGTGAAAGGCATCTTTCTGAATTTTCTTCTTGAAGGTGCTGCCACCCCTTGG  
CACTGTGGAACCTGCCACCTTGGGTCTGTGTCACTTGTAGGTTTCTCTGCCTCCAGGTTGCCTCAACAGCAGGAGG  
CACAGCAGTTTACCATCTTTGAGGTGAGGGTGGGGTGCCCCAGCTAGGAAGCAAGATCGCTGTGCTAGGTCTGA  
CCAAAACCAGAGGGCAGTCTAGTCTGGGGGTAAAGCCCTCAGATCCAGGGTACACTCTTCTCCATTCCCTCCA  
CCCACTTGCTGTACCCAGTCACTAAGCAATCACTGGGCCAGAGGAGAGGAGACAGACACACTGGCTCC

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**FIGURE 381B**

TGGACCTAAAGGGTATGAGCTGGAGCTAAGGCCAGCTAGAGCTTCCACTGTCAGCCCTCACTGTCAGCCCCACTG  
CACCCCCCTGTGCCTGCTGGGCACTGGGCACTAGCTAGATGCTTTAGGTTGCTTCAGCTGATCCTTCAACTCTGT  
GAGGTGGATACCAATATTCTATTTTGCAGATAGAATTTGGCCCAGAGAGGTAACTAATATATCCATGATCACAC  
AGCTAATAAAAGTCAGAGCTCAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 382**

MEELEKELDVVDPDGSVPVGLRQRNQTQSTGVYNREAMLNFCETKKLMQREMSMDESKQVETKTDKNGQE  
RGRDASKKALGPRRNSDLGKEPKRGGLKKSFSRDRDEAGGKSSEKPKKEKIIRGIDKGRVRAAVDKKEAGKDGRG  
EERAVATKKEEEKGGDRNTGLSRDKDKKREEMKEVAKKEDDEKVKGERNTDTRKEGEKMKRAGGNTDMKKEDE  
KVKRGTGNTDTKKDDEKVKKNEPLHEKEAKDDSKTKTPEKQTPSGPTKPSEGPKEVEEAAPSIFDEPLERVKNN  
DPEMTEVNVNNSDCITNEILVRFTEALEFNTVVKLFALANTRADDHVAFAIAIMLKANKTITSLNLDNSNHITGKG  
ILAIFFRALLQNNLTLELRFHNQRHICGGKTEMEIAKLLKENTSLLKLGYPHFELAGPRMTVTNLLSRNMDKQKQKR  
LQEQRQAEAKGEKKDLLEVPKAGAVAKGSPKPSQPSPKPSPKNSPKKGGAPAAPPPPPPLAPPLIMENLKNS  
LSPATQRKMGDKVLPQAEKNSRDQLLAIRSSNLKQLKKVEVPKLLQ

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**FIGURE 383**

ACAGGCACAGGTGAGGAACTCAACTCAAACCTCCTCTCTCTGGGAAAACGCGGTGCTTGCTCCTCCCGGAGTGGCC  
TTGGCAGGGTGTGGAGCCCTCGGTCTGCCCCGTCCGGTCTCTGGGGCCAAGGCTGGGTTTCCCTC**ATGT**ATGGC  
AAGAGCTCTACTCGTGCGGTGCTTCTTCTCCTTGGCATAACAGCTCACAGCTCTTTGGCCTATAGCAGCTGTGGAA  
ATTTATACCTCCCGGGTGCTGGAGGCTGTTAATGGGACAGATGCTCGGTAAATGCACCTTCTCCAGCTTTGCC  
CCTGTGGGTGATGCTCTAACAGTGACCTGGAATTTTCGTCTCTAGACGGGGGACCTGAGCAGTTTGTATTCTAC  
TACCACATAGATCCCTTCCAACCCATGAGTGGGCGGTTTAAGGACCGGGTGTCTTGGGATGGGAATCCTGAGCGG  
TACGATGCCTCCATCCTTCTCTGGAACTGCAGTTCGACGACAATGGGACATACACCTGCCAGGTGAAGAACCCA  
CCTGATGTTGATGGGGTGATAGGGGAGATCCGGCTCAGCGTCGTGCACACTGTACGCTTCTCTGAGATCCACTTC  
CTGGCTCTGGCCATTGGCTCTGCCTGTGCACTGATGATCATAATAGTAATTGTAGTGGTCCTCTTCCAGCATTAC  
CGGAAAAAGCGATGGGCCGAAAGAGCTCATAAAGTGGTGGAGATAAAATCAAAGAAGAGGAAAGGCTCAACCAA  
GAGAAAAAGGTCTCTGTTTATTTAGAAGACACAGAC**TAA**CAATTTTAGATGGAAGCTGAGATGATTTCCAAGAAC  
AAGAACCCTAGTATTTCTTGAAGTTAATGGAACTTTTCTTTGGCTTTTCCAGTTGTGACCCGTTTCCAACCAG  
TTCTGCAGCATATTAGATTCTAGACAAGCAACACCCCTCTGGAGCCAGCACAGTGCTCCTCCATATCACCAGTCA  
TACACAGCCTCATTATTAAGGTCTTATTTAATTTAGAGTGTAATTTTTTCAAGTGCTCATTAGGTTTTATAAA  
CAAGAAGCTACATTTTTGCCCTTAAGACACTACTTACAGTGTTATGACTTGTATACACATATATTGGTATCAAAA  
GGGATAAAAGCCAATTTGTCTGTTACATTTCTTTACGTATTTCTTTTAGCAGCACTTCTGCTACTAAAGTTAA  
TGTGTTTACTCTCTTTCTTCCACATTCTCAATTAAGGTGAGCTAAGCCTCCTCGGTGTTTCTGATTAACAG  
TAAATCCTAAATTCAACTGTTAAATGACATTTTTATTTTTATGTCTCTCCTTAACTATGAGACACATCTTGTTT  
TACTGAATTTCTTTCAATATTCAGGTGATAGATTTTTGTTGTTTTGTTAATTAATCCAAGATTTACAATAGCAC  
AACGCTAAATCACACAGTAACACAAAAGGTTACATAGATATGAAAAGATTGGCAGAGGCCATTGCAGGATGAAT  
CACTTGTCACTTTTCTTCTGTGCTGGGAAAAATAATCAACAATGTGGGTCTTTCATGAGCAGTGACGGATAGTTT  
AGCTTACTATGTTTCCCCCCTCAATGATCTATAACAACAGAGCAAAGTCTATGCTCATTTCAGACTGGAA  
TCATTAAGTAATTTAATAAAAAAATTGTGAAACAGCATATTACAAGTTTGAAAATTCAGGGCTGGTGAAAAAAT  
CAACTCTAAATGATGATAATTTTGTACAGTTTTATATAAACTCTGAGAAGTAGAAGAAATTATTAACTTTTTTT  
CTTTTTTAATTCTAATTCACCTGTTTATTTTTGGGGGAGGAAGACTTTGGTATGGAGCAAAGAAATACCAAACTA  
CTTTAAATGGAATAAAACCAACTTTATTCTTTTTTTCCCCCATACTGGTAGATAAAGCAAACCTTTATAAGTGGGC  
TATTGAAAGAAAAGTTACAAGCTTAAGATACAGAAGCATTGTTCAAAGGATAGAAAGCATCTAAAAGTTTAGGC  
TCAAGATCAATCTTTACAGATTGATATTTTCAGTTTTTAATCGACTGGACTGCAGATGTTTTTCTTTTAAACAA  
CTGGAATTTTCAAACAGATTATCTGTATTTAAATGTATAGACCTTGATATTTTCCAATACTATTTTTTAAAAA  
TTGTATGATTTACATATGAACCTCAGTTCTGAAATTCATTACATATCTGTCTCATTCTGCCTTTTATACTGTCTA  
AAAAAGCAAAGTTTTAAAGTGCAATTTTAAACTGTAAATTACATCTGAAGGCTATATATCCTTTAATCACATTT  
TATATTTTTTCTTCAATTTCTAACCTTTGAAAATATTATACTGGATATTTCTTCAAACAGATGTCCTGGATGA  
TGGTCCATAAGAATAATGAAGAAGTAGTTAAAAATGTATGGACAGTTTTTCCGGCAAATTTGTAGCTTATGTCT  
TGGCTAAATAGTCAAGGGGTAATATGGGCCTGTTGTTTAGTGTCTCTCTCCTAAAGAGCACTTTTGTATTGTAAT  
TTATTTTTTATTATGCTTTAAACACTATGTAAATAAACCTTTAGTAATAAAGAATTATCAGTTATAAAAAA  
AAAAA

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**FIGURE 384**

MYGKSSTRAVLLLLGIQLTALWPIAAVEIYTSRVLEAVNGTDARLKCTFSSFAPVGDALTVTNFRPLDGGPEQF  
VFYYHIDPFQPMGRFKDRVSWDGNPERYDASILLWKLQFDDNGTYTCQVKNPPDVGVI GEIRLSVVHTVRFSE  
IHFLALAIGSACALMIIIVIVVVL FQHYRKKRWAERAHKVVEIKSKEEERLNQEKKVSVYLEDTD

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**FIGURE 385**

GCTCAACTCAAACCTCTCTCTCTGGGAAAACGCGGTGCTTGCTCCTCCCGAGTGGCCTTGGCAGGGTGTGGAG  
CCCTCGGTCTGCCCCGTCCGGTCTCTGGGGCCAAGGCTGGGTTTCCCTCATGTATGGCAAGAGCTCTACTCGTGC  
GGTGCTTCTTCTCCTTGGCATAACAGCTCACAGCTCTTTGGCCTATAGCAGCTGTGGAAATTTATACCTCCGGGT  
GCTGGAGGCTGTAAATGGGACAGATGCTCGGTTAAATGCACTTTCTCCAGCTTTGCCCTGTGGGTGATGCTCT  
AACAGTGACCTGGAATTTTCGTCTCTAGACGGGGGACCTGAGCAGTTTGTATTCTACTACCACATAGATCCCTT  
CCAACCCATGAGTGGGCGGTTTAAGGACCGGTGTCTTGGGATGGGAATCCTGAGCGGTACGATGCCTCCATCCT  
TCTCTGGAACTGCAGTTGACGACAATGGGACATACACCTGCCAGGTGAAGAACCACCTGATGTTGATGGGGT  
GATAGGGGAGATCCGGCTCAGCGTCGTGCACACTGTACGCTTCTCTGAGATCCACTTCCTGGCTCTGGCCATTGG  
CTCTGCCTGTGCACTGATGATCATAATAGTAATTGTAGTGGTCCTCTTCCAGCATTACCGGAAAAAGCGATGGGC  
CGAAAGAGCTCATAAAGTGGTGGAGATAAAATCAAAAGAAGAGGAAAGGCTCAACCAAGAGAAAAAGGTCTCTGT  
TTATTTAGAAGACACAGACTTAACAATTTTAGATGGAAGCTGAGATGATTTCCAAGAACAAGAACCCTAGTATTTT  
TTGAAGTTAATGGAACTTTTCTTTGGCTTTTCCAGTTGTGACCCGTTTTTCCAACCAGTTCTGCAGCATATTAGA  
TTCTAGACAAGCAACACCCCTCTGGAGCCAGCACAGTGCTCCTCCATATCACCAGTCATACACAGCCTCATTATT  
AAGGTCTTATTTAATTTTACAGTGTAAATTTTTTCAAGTGCTCATTAGGTTTTATAACAAGAAGCTACATTTTT  
GCCCTTAAGATACTACTTACAGTGTATGACTTGTATACACATATATTGGTATCAAAGGGGATAAAAGCCAATTT  
GTCTGTTACATTTCTTTTACGTATTTCTTTTAGCAGCACTTCTGCTACTAAAGTTAATGTGTTTACTCTCTTTC  
CTTCCACATTCTCAATTAAGGTGAGCTAAGCCTCCTCGGTGTTTCTGATTAACAGTAAATCCTAAATTCAAA  
CTGTTAAATGACATTTTTATTTTTATGTCTCTCCTTAACTATGAGACACATCTTGTTTTACTGAATTTCTTTCAA  
TATTCAGGTGATAGATTTTTGTTGTTTTGTTAATTAATCCAAGATTTACAATAGCACACGCTAAATCACACAG  
TAACTACAAAAGGTTACATAGATATGAAAAGATTGGCAGAGGCCATTGCAGGATGAATCACTTGTCACCTTTCTT  
CTGTGCTGGGAAAAATAATCAACAATGTGGGTCTTTCATGAGCAGTGACGGATAGTTTAGCTTACTATGTTTCCC  
CCCCAATTCAATGATCTATAACAACAGAGCAAAGTCTATGCTCATTTCAGACTGGAATCATTAGTAATTTAAT  
AAAAAGATTGTGAAACAGCATATTACAAGTTTGAAAATTCAGGGCTGGTGAAAAAATCAACTCTAAATGATGAT  
AATTTTGTACAGTTTTATATAAACTCTGAGAAGTGAAGAAATTTAATTAATTTTTTTCTTTTTTAATTTCTAATT  
CACTTGTTTATTTTGGGGGAGGAAGACTTTGGTATGGAGCAAAGAAATACCAAACCTACTTTAAATGGAATAAAA  
CCAACCTTATTTCTTTTTTTTCCCCATACTGGTAGATAAAGCAAACCTTTATAAGTGGGCTATTGAAAGAAAAGTTA  
CAAGCTTAAGATACAGAAGCATTGTTTCAAAGGATAGAAAGCATCTAAAAGTTTAGGCTCAAGATCAATCTTTAC  
AGATTGATATTTTCAGTTTTTAATCGACTGGACTGCAGATGTTTTTCTTTTAACAACTGGAATTTTCAAACAG  
ATTATCTGTATTTAAATGTATAGACCTTGATATTTTTCCAATACTATTTTTTAAAAAATTGTATGATTTACATAT  
GAACCTCAGTTCTGAAATTCATTACATATCTGTCTCATTCTGCCTTTTATACTGTCTAAAAAAGCAAAGTTTTAA  
AGTGCAATTTTAAAACTGTAAATTACATCTGAAGGCTATATATCCTTTAATCACATTTTATATTTTTTCTTCACA  
ATTCTAACCTTTGAAAATATTATAACTGGATATTTCTTCAAACAGATGTCCTGGATGATGGTCCATAAGAATAAT  
GAAGAAGTAGTTAAAAATGTATGGACAGTTTTTCCGGCAAATTTGTAGCTTATGTCTTGGCTAAATAGTCAAGG  
GGTAATATGGGCCTGTTGTTTAGTGTCTCCTTCCTAAAGAGCACTTTGTATTGTAATTTATTTTTTATTATGCT  
TTAAACACTATGTAAATAAACCTTTAGTAATAAAGAAAAA

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**FIGURE 386**

MYGKSSTRAVLLLLGIQLTALWPIAAVEIYTSRVLEAVNGTDARLKCTFSSFAPVGDALVTWNFRPLDGGPEQF  
VFYYHIDPFQPMGRFKDRVSWDGNPERYDASILLWKLQFDDNGTYTCQVKNPPDVGVI GEIRLSVVHTVRFSE  
IHFLALAIGSACALMIIIVIVVVL FQHYRKKRWAERAHKVVEIKSKEEERLNQEKKVSVYLETD

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**FIGURE 387**

AGCGGCTGGGCTTGCAAGGCGCGATCCAAGAGGGATTTAAGCAGCCCAGAGCTCCAGAGAAAAAGAGAGCGAGAG  
AGAACCACACACAGAGACGGCTTAAGCGTTTACCCGAATTAAATATATATATTTTTTAAAAAGAACTGTTGAGTTTTA  
TCATTTTCGTTAAGTGACCGTGCGCAGCGCTGTAAGTGCAGGATGGGAAGCAGAATAGCAAAGTGGCCCTGAA  
GTGATGGAGGACCTGGTGAAGAGCACAGAGTTTAATGAGCATGAACTCAAGCAGTGGTACAAAGGATTTCTCAAG  
GACTGTCCAAGTGGGAGGCTAAATCTCGAGGAATTTTCAGCAGCTCTATGTGAAGTTCTTTCCCTTATGGAGACGCC  
TCCAAGTTTGCCAGCATGCCTTCCGAACCTTCGACAAGAATGGGGACGGCACCATTGACTTCCGAGAGTTCATC  
TGCGCTCTGTCCATCACCTCCAGGGGCAGCTTTGAGCAGAAGCTGAACTGGGCCTTCAATATGTATGACCTGGAT  
GGTGATGGCAAGATCACCCGAGTGGAGATGCTGGAGATCATCGAGGCTATCTACAAAATGGTAGGCACTGTGATC  
ATGATGAAAATGAATGAGGATGGCCTGACGCCTGAGCAGCGAGTAGACAAGATTTTCAGCAAGATGGATAAGAAC  
AAAGATGACCAGATTACACTGGATGAATTCAAAGAAGCTGCAAAGAGCGACCCTTCCATTGTATTACTTCTGCAG  
TGCGACATCCAGAAATGAGCTGATGTCAATGCTATGGACTGCACAAAAGTCTCAATGTTCCATTGAGTCTGCAGC  
TATTCAAATATTGCTTGGACTACCTAT  
AAATGGACTTGCTTCTTGTGTTTGAAACACTCGTGTGCATGAGAATGTCATTTGCTAATGAATTTTAAAAAGCATA  
TATAAAACAAAACAAACACCTGCCACAATGTGATATGTGTAATATCATTTTATAAAATCCCTCTTCCCTCCAAAG  
CCTGGGCAGAAATGTGCTGCAAAGAGTTATATGACTTCTTGTTTCATGTTTTGCTAATGCTCGTATCTCCTTGATT  
ACATAATGTTAGTAGCACTGAGACCCCATGGTAATGTAACCTTAATTATAAGCTATGTCACCTACCTCCTGTAAA  
ATACTATTGGACAGACACAGAGGGACCCCTGGCTCCTGTGTCTGGTCCACACACCACAGAAGCTTGTATTATCAG  
TGAATATAAATGTACTACATTTGCATGCCTTTTGGGTTTGCCTTAATTCTTACCTCATTGTCATCCTATCGATCT  
GGAAAGAGCTGTTTTGGATGAATGCAGTATAAAATGTAAAAACCTGCTAAATGACTTATTGATTAAAGTATATCT  
ATCTATATATACATATACACAAAGATATTATTTATCGAAAGTAAAAAGATGGAAGTGATTGGTTTCTGTTTGA  
ATTTTCAAAGGCTTCCAATGTGGTGGCAATAAATGTCCCAAATAAATTTATAACAATTG

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**FIGURE 388**

MGKQNSKLAPEVMEDLVKSTEFNEHELKQWYKGFLKDCPSGRNLNLEEFQQLYVKFFPYGDASKFAQHAFRTFDKN  
GDGTIDFREFICALSITSRGSFEQKLNWAFNMYDLGDGKITRVEMLEIIIEAIYKMVGTVIMMKMNEDGLTPEQR  
VDKIFSKMDKNKDDQITLDEFKEAAKSDPSIVLLLQCDIQK

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**FIGURE 389**

AGCGGAGCGGAGATTTACCCGAGCGTGTTCGGGCAGCGGCTGGGCTTGCAAGGCGCGATCCAAGAGGGATTTAAG  
CAGCCCAGAGCTCCAGAGAAAAAGAGAGCGAGAGAGAACCACACACAGAGACGGCTTAAGCGTTTACCCGAATTA  
AATATATATTTTTTAAAAAGAACTGTTGAGTTTTATCATTTTTCGTTAAGTGACCGTGCGCAGCGCTGTAAGTGCAG  
GATGGGGAAGCAGAATAGCAAAGTGGCCCCCTGAAGTGATGGAGGACCTGGTGAAGAGCACAGAGTTTAATGAGCA  
TGAAGTCAAGCAGTGGTACAAAGGATTTCTCAAGGACTGTCCAAGTGGGAGGCTAAATCTCGAGGAATTTTCAGCA  
GCTCTATGTGAAGTTCCTTCCTTATGGAGACGCCTCCAAGTTTGCCAGCATGCCTTCCGAACCTTCGACAAGAA  
TGGGGACGGCACCATTGACTTCCGAGAGTTTCATCTGCGCTCTGTCCATCACCTCCAGGGGCAGCTTTGAGCAGAA  
GCTGAACTGGGCCTTCAATATGTATGACCTGGATGGTGTGCAAGATCACCCGAGTGGAGATGCTGGAGATCAT  
CGAGGCTATCTACAAAATGGTAGGCACTGTGATCATGATGAAAATGAATGAGGATGGCCTGACGCCTGAGCAGCG  
AGTAGACAAGATTTTCAGCAAGATGGATAAGAACAAAGATGACCAGATTACACTGGATGAATTCAAAGAAGCTGC  
AAAGAGCGACCCTTCCATTGTATTACTTCTGCAGTGCGACATCCAGAAATGAGCTGATGTCAATGCTATGGACTG  
CACAAAAGTCTCAATGTTCCATTTCAGTCTGCAGCTATTACACACACACACACACACACACACACACACACACAC  
ACACACACACACAAAATATTGCTTGGACTACCTATAAATGGACTTGCTTCTTGTGTTTGAAACACTCGTGTGCATG  
AGAATGTCAATTTGCTAATGAATTTTTAAAGCATATATAAAACAAAACAAACACCTGCCACAATGTGATATGTGT  
AATATCATTTTCATAAAAATCCCTCTTCCTCCAAAGCCTGGGCAGAAATGTGCTGCAAAGAGTTATATGACTTCTT  
GTTTCATGTTTGTCTAATGCTCGTATCTCCTTGATTACATAATGTTAGTAGCACTGAGACCCCCATGGTAATGTAA  
CTTAATTATAAGCTATGTCACTACCCTCCTGTAAAATACTATTGGACAGACACAGAGGGACCCTTGGCTCCTGTG  
TCTGGTCCACACACCACAGAAGCTTGTATTATCAGTGAATATAAATGTACTACATTTGCATGCCTTTTGGGTTTG  
CCTTAATTCTTACCTCATTGTCATCCTATCGATCTGGAAAGAGCTGTTTTGGATGAATGCAGTATAAAATGTAAA  
AACCCTGCTAAATGACTTATTGATTAAGTATATCTATCTATATATACATATACACAAAGATATTATTTATCGAAA  
GTAAAAAAGATGGAAGTGTATTGGTTTCTGTTTGAATTTTCAAAGGCTTCCAATGTGGTGGCAATAAATGTCCCA  
AATAAATTTATAACAATTGATTTTCCCCCTAATTCTTATTTTATAATTTTAAATTTGCAGCAGTTGCTAGCAACA  
ACTTACTAAATCTACTCTTAAATATACAACCTTTGGAATTTGAAGAATTAATGACAACAAAAGGGAAAAAAGCAAC  
TTTCCAACCTTTTCATCCAGGCTCCCAAAAGAGGGACAACGAACATGGCATGTGAAAAGTAAAACAGATTTGTTCA  
TTCCGAAAAAAAATGTTTCATTCTATGACAATAAATTTTATCTCAGTGGAAAAAAA



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**FIGURE 390**

MGKQNSKLAPEVMEDLVKSTEFNEHELKQWYKGF LKDCPSGRLNLEEFQQLYVKFFPYGDASKFAQHAFRTFDKN  
GDGTIDFREFICALSITSRGSFEQKLNWAFNMYDL DGDGKITRVEMLEIIIEAIYKMVGTVIMMKMNEDGLTPEQR  
VDKIFSKMDKNKDDQITLDEFKEAAKSDPSIVLL LQCDIQK

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**FIGURE 391**

[illegible]

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**FIGURE 392**

MGKDYYCILGIEKGASDEDIKKAYRKQALKFHPDKNKSPQAEKFKAEVAYEVLSDPKKREIYDQFGEEGLKGG  
AGGTDGQGGTFRYTFHGDPHATFAAFFGGSNPFIEIFFGRMGGRDSEEMEIDGDPFSAFGFSMNGYPRDRNSVG  
PSRLKQDPPVIHEL RVSL E E I YSGCTKRMKISRKRLNADGRSYRSEDKILTIEIKKGWKEGTKITFPREGDETPN  
SIPADIVFIKDKDHPKFKRDGSNIIYTAKISLREALCGCSINVPTLDGRNIPMSVNDIVKPGMRRRIIGYGLPF  
PKNPDQRGDL LIEFEVSFPDTISSSSKEVLRKHL PAS

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**FIGURE 393**

GCTACGCGGGCCACGCTGCTGGCTGGCCTGACCTAGGCGCGCGGGGTCGGGCGGGCCGCGCGGGCGGGCTGAGTGA  
GCAAGACAAGACACTCAAGAAGAGCGAGCTGCGCCTGGGTCCCCGCCAGGCTTGACGCAGAGGCGGGCGGCAGA  
CGGTGCCCCGGCGGAATCTCCTGAGCTCCGCCGCCAGCTCTGGTGCCAGCGCCAGTGGCCGCCGCTTCGAAAGT  
GACTGGTGCCTCGCCGCCCTCCTCTCGGTGCGGGACCATGAAGCTGCTGCCGTCGGTGGTGCTGAAGCTCTTTCTG  
GCTGCAGTTCTCTCGGCACTGGTGACTGGCGAGAGCCTGGAGCGGCTTCGGAGAGGGCTAGCTGCTGGAACCAGC  
AACCCGGACCCTCCCCTGTATCCACGGACCAGCTGCTACCCCTAGGAGGCGGCCGGGACCGGAAAGTCCGTGAC  
TTGCAAGAGGCAGATCTGGACCTTTTGAGAGTCACTTTATCCTCCAAGCCACAAGCACTGGCCACACCAAACAAG  
GAGGAGCACGGGAAAAGAAAGAAGAAAGGCAAGGGGCTAGGGAAGAAGAGGGACCCATGTCTTCGGAAATACAAG  
GACTTCTGCATCCATGGAGAATGCAATATGTGAAGGAGCTCCGGGCTCCCTCCTGCATCTGCCACCCGGGTTAC  
CATGGAGAGAGGTGTCTATGGGCTGAGCCTCCAGTGGAAAATCGCTTATATACCTATGACCACACAACCATCCTG  
GCCGTGGTGGCTGTGGTGTCTGTCTGTCTGTCTGGTCACTCGTGGGGCTTCTCATGTTTAGGTACCATAGG  
AGAGGAGGTTATGATGTGGAAGAAATGAAGAGAAAGTGAAGTTGGGCATGACTAATCCCAGTGAAGAGAGACTTGTG  
CTCAAGGAATCGGCTGGGGACTGCTACCTCTGAGAAGACACAAGGTGATTTAGACTGCAGAGGGGAAAGACTTC  
CATCTAGTCACAAAGACTCCTTCGTCCCCAGTTGCCGTCTAGGATTGGGCCTCCATAATTGCTTTGCCAAAATA  
CCAGAGCCTTCAAGTGCCAAACAGAGTATGTCCGATGGTATCTGGGTAAGAAGAAAGCAAAAGCAAGGGACCTTC  
ATGCCCTTCTGATTCCCCTCCACCAAACCCCACTTCCCCTCATAAGTTTGTTTAAACACTTATCTTCTGGATTAG  
AATGCCGGTTAAATTCCATATGCTCCAGGATCTTTGACTGAAAAAAAAAAGAAGAAGAAGGAGAGCAAGAA  
GGAAAGATTTGTGAAGTGAAGAAAGCAACAAAGATTGAGAAGCCATGTACTCAAGTACCACCAAGGGATCTGCC  
ATTGGGACCCCTCAGTGCTGGATTTGATGAGTTAACTGTGAAATACCACAAGCCTGAGAAGTGAATTTTGGGACT  
TCTACCCAGATGGAAAAATAACAACATATTTTTGTTGTTGTTGTTTGTAAATGCCTCTTAAATTATATATTTATTT  
TATTCTATGTATGTTAATTTATTTAGTTTTTAACAATCTAACAATAATATTTCAAGTGCCTAGACTGTTACTTTG  
GCAATTTCTGGCCCTCCACTCCTCATCCCCACAATCTGGCTTAGTGCCACCCACCTTTGCCACAAAGCTAGGAT  
GGTTCTGTGACCCATCTGTAGTAATTTATTGTCTGTCTACATTTCTGCAGATCTTCCGTGGTCAGAGTGCCACTG  
CGGGAGCTCTGTATGGTCAGGATGTAGGGGTTAACTTGGTCAGAGCCACTCTATGAGTTGGACTTCAGTCTTGCC  
TAGGCGATTTTGTCTACCATTTGTGTTTTGAAAGCCCAAGGTGCTGATGTCAAAGTGTAACAGATATCAGTGTCT  
CCCCGTGTCTCTCCCTGCCAAGTCTCAGAAGAGGTTGGGCTTCCATGCCTGTAGCTTTCTGGTCCCTCACCCC  
CATGGCCCCAGGCCACAGCGTGGGAAGTCACTTTCCCTTGTGTCAAGACATTTCTCTAACTCCTGCCATTCTTCT  
GGTGCTACTCCATGCAGGGGTCAGTGCAGCAGAGGACAGTCTGGAGAAGGTATTAGCAAAGCAAAAGGCTGAGAA  
GGAACAGGGAACATTGGAGCTGACTGTTCTTGGTAACTGATTACCTGCCAATTGCTACCGAGAAGGTTGGAGGTG  
GGGAAGGCTTTGTATAATCCCACCCACCTACCAAACGATGAAGGTATGCTGTCATGGTCCCTTTCTGGAAGTTT  
CTGGTGCCATTTCTGAAGTGTACAACTTGTATTTCCAAACCTGGTTCATATTTATACCTTTGCAATCCAAATAAA  
GATAACCCCTTATTCCATAAAAAAAAAAAAAAAAAA

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**FIGURE 394**

MKLLPSVVLKFLAAVLSALVTGESLERLRRLAAGTSNPDPTVSTDQLLPLGGGRDRKVVDLQEADLDLLRVT  
LSSKPQALATPNKEEHGKRKKKGKGLGKKRDPCLRKYKDFCIHGECKYVKELRAPSCICHPPGYHGERCHGLSLPV  
ENRLTYDHTTILAVVAVVLSSVCLLVIVGLLMFRYHRRGGYDVENEKVKLGMTNSH

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**FIGURE 395**

AGTGCCCCAGGAGCTATGACAAGCAAAGGAACATACTTGCCTGGAGATAGCCTTTGCGATATTTAAATGTCCGTG  
GATACAGAAATCTCTGCAGGCAAGTTGCTCCAGAGCATATTGCAGGACAAGCCTGTAACGAATAGTTAAATTCAC  
GGCATCTGGATTCCCTAATCCTTTTCCGAAATGGCAGGTGTGAGTGCCTGTATAAAATATTCTATGTTTACCTTCA  
ACTTCTTGTTCTGGCTATGTGGTATCTTGATCCTAGCATTAGCAATATGGGTACGAGTAAGCAATGACTCTCAAG  
CAATTTTTGGTTCTGAAGATGTAGGCTCTAGCTCCTACGTTGCTGTGGACATATTGATTGCTGTAGGTGCCATCA  
TCATGATTCTGGGCTTCCTGGGATGCTGCGGTGCTATAAAAGAAAGTCGCTGCATGCTTCTGTTGTTTTTCATAG  
GCTTGCTTCTGATCCTGCTCCTGCAGGTGGCGACAGGTATCCTAGGAGCTGTTTTCAAATCTAAGTCTGATCGCA  
TTGTGAATGAACTCTCTATGAAAACACAAAGCTTTTGAGCGCCACAGGGGAAAGTGAAAAACAATTCCAGGAAG  
CCATAATTGTGTTTCAAGAAGAGTTTAAATGCTGCGGTTTGGTCAATGGAGCTGCTGATTGGGGAAATAATTTTC  
AACACTATCCTGAATTATGTGCCTGTCTAGATAAGCAGAGACCATGCCAAAGCTATAATGGAAAACAAGTTTACA  
AAGAGACCTGTATTTCTTTCATAAAAGACTTCTTGCCAAAAAATTTGATTATAGTTATTGGAATATCATTGAGAC  
TGGCAGTTATTGAGATACTGGGTTTGGTGTCTTCTATGGTCCTGTATTGCCAGATCGGGAACAAATGAATCTGTG  
GATGCATCAACCTATCGTCAGTCAAACCCCTTTAAATGTTGCTTTGGCTTTGTAAATTTAAATATGTAAGTGCT  
ATATAAGTCAGGAGCAGCTGTCTTTTAAATGTTCTCGGCTAGCTAGACCACAGATATCTTCTAGACATATTGAA  
CACATTTAAGATTTGAGGGATATAAGGGAAAATGATATGAATGTGTATTTTACTCAAAATAAAAGTAACTGTTT  
ACGTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 396**

MAGVSACIKYSMFTFNFLFWLCGILILALAIWVRVSND SQAIFGSEDVGSSSYVAVDILIAVGAIIMILGFLGCC  
GAIKESRCMLLLFFIGLLLILLQVATGILGAVFKSKSDRIVNETLYENTKLLSATGESEKQFQEAIIVFQEEFK  
CCGLVNGAADWGNNFQHYPELCACLDKQRPCQSYNGKQVYKETCISFIKDFLAKNLIIVIGISFGLAVIEILGLV  
FSMVLYCQIGNK

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**FIGURE 397A**

CGTTAAATGCAAACGCTGCTCTGGCTCATGTGTTTGTCTCCGAGGTATAGGTTTTGTTCGACTGACGTATCAGATA  
GTCAGAGTGGTTACCACACCGACGTTGTAGCAGCTGCATAATAAATGACTGAAAGAATCATGTTAGGCATGCCCA  
CCTAACCTAACTTGAATCATGCGAAAGGGGAGCTGTTGGAATTCAAATAGACTTTCTGGTTCCCAGCAGTCGGCA  
GTAATAGAATGCTTTTCAGGAAGATGACAGAATCAGGAGAAAGATGCTGTTTTGCACTATCTTGATTTGTTACAGC  
AGCCAACTTATTGGCATGATGGAGTGACAGGAAAAACAGCTGGCATGGAAGATGAAAGAGAAGATGTTCAAAAGA  
AAACATTACAAAATGGGTAAATGCACAATTTTCTAAGTTTGGGAAGCAGCATATTGAGAACCTCTTCAGTGACC  
TACAGGATGGGAGGCGCCTCCTAGACCTCCTCGAAGGCCTGACAGGGCAAAAACAGCTGCAAAAAGAAAAAGGATCCA  
CAAGAGTTTCATGCCCTGAACAATGTCAACAAGGCCTGCGGGTTTTGCAGAACAATAATGTTGATTTAGTGAATA  
TTGGAAGTACTGACATCGTAGATGGAATCATAACTGACTCTTGGTTTTGATTTGGAATATAATCCTCCACTGGC  
AGGTCAAAAATGTAATGAAAAATATCATGGCTGGATTGCAACAAACCAACAGTGAAAAGATTCTCCTGAGCTGGG  
TCCGACAATCAACTCGTAATTATCCACAGGTTAATGTAATCAACTTCACCACCAGCTGGTCTGATGGCCTGGCTT  
TGAATGCTCTCATCCATAGTCATAGGCCAGACCTATTTGACTGGAATAGTGTGGTTTGCCAGCAGTCAGCCACAC  
AACGACTGGAACATGCATTCAACATCGCCAGATATCAATTAGGCATAGAGAACTACTCGATCCTGAAGATGTTG  
ATACCACCTATCCAGATAAGAAGTCCATCTTAATGTACATCACATCACTCTTCCAAGTTTTGCCTCAACAAGTGA  
GCATTGAAGCCATCCAGGAAGTGGAAATGTTGCCAAGGCCACCTAAAGTGACTAAAGAAGAACATTTTCAGTTAC  
ATCATCAAATGCACTATTCTCAACAGATCACGGTCAGTCTAGCACAGGGATATGAGAGAAGTTCTTCCCTAAGC  
CTCGATTCAAGAGCTATGCCTACACACAGGCTGCTTATGTACCACCTCTGACCCTACACGGAGCCATTTTCCTT  
CACAGCATTTGGAAGCTCCTGAAGACAAGTCATTTGGCAGTTTCATTGATGGAGAGTGAAGTAAACCTGGACCGTT  
ATCAAACAGCTTTAGAAGAAGTATTATCGTGGCTTCTTTCTGCTGAGGACACATTGCAAGCACAAAGGAGAGATT  
CTAATGATGTGGAAGTGGTGAAGACCAGTTTCATACTCATGAGGGGTACATGATGGATTTGACAGCCCATCAGG  
GCCGGGTTGGTAATATTCTACAATTGGGAAGTAAGCTGATTGGAACAGGAAAATTATCAGAAGATGAAGAACTG  
AAGTACAAGAGCAGATGAATCTCCTAAATTCAAGATGGGAATGCCTCAGGGTAGCTAGCATGGAAAAACAAAGCA  
ATTTACATAGAGTTTTAATGGATCTCCAGAATCAGAACTGAAAGAGTTGAATGACTGGCTAACAAAAACAGAAG  
AAAGAACAAGGAAAATGGAGGAAGAGCCTCTTGGACCTGATCTTGAAGACCTAAAACGCCAAGTACAACAACATA  
AGGTGCTTCAAGAAGATCTAGAACAAGAACAAGTCAGGGTCAATTCTCTCACTCACATGGTGGTGGTAGTTGATG  
AATCTAGTGGAGATCACGCAACTGCTGCTTTGGAAGAACAACCTTAAGGTATTGGGAGATCGATGGGCAACATCT  
GTAGATGGACAGAAGACCGCTGGGTTCTTTTACAAGACATCCTTCTCAAATGGCAACGTCTTACTGAAGAACAGT  
GCCTTTTTTAGTGATGGCTTTTCAGAAAAAGAAGATGCAGTGAACAAGATTACACAACCTGGCTTTAAAGATCAAA  
ATGAAATGTTATCAAGTCTTCAAAAACCTGGCCGTTTTTAAAGCGGATCTAGAAAAGAAAAAGCAATCCATGGGCA  
AACTGTATTCACTCAAAACAAGATCTTCTTTCAACACTGAAGAATAAGTCAGTGACCCAGAAGACGGAAGCATGGC  
TGGATAACTTTGCCCGGTGTTGGGATAATTTAGTCCAAAAACCTTGAAAGAGTACAGCACAGATTTACAGGCTG  
TCACCACCACTCAGCCATCACTAACACAGACAACCTGTAATGGAAACAGTAACTACGGTGACCACAAGGGAACAGA  
TCCTGGTAAAGCATGCTCAAGAGGAACCTTCACCACCACCTCCCCAAAAGAAGAGGCAGATTACTGTGGATTCTG  
AAATTAGGAAAAGGTTGGATGTTGATATAACTGAACTTCACAGCTGGATTACTCGCTCAGAAGCTGTGTTGCAGA  
GTCCTGAATTTGCAATCTTTCGGAAGGAAGGCAACTTCTCAGACTTAAAAGAAAAAGTCAATGCCATAGAGCGAG  
AAAAAGCTGAGAAGTTCAGAAAACCTGCAAGATGCCAGCAGATCAGCTCAGGCCCTGGTGGAACAGATGGTGAATG  
AGGGTGTTAATGCAGATAGCATCAAACAAGCCTCAGAACAACCTGAACAGCCGGTGGATCGAATTTCTGCCAGTTGC  
TAAGTGAGAGACTTAAGTGGCTGGAGTATCAGAACAACATCATCGCTTTCTATAATCAGCTACAACAATTGGAGC  
AGATGACAACCTACTGCTGAAAACCTGGTTGAAAATCCAACCCACCACCCCATCAGAGCCAACAGCAATTTAAAGTC  
AGTTAAAAATTTGTAAGGATGAAGTCAACCGGCTATCAGGTCTTCAACCTCAAATTGAACGATTAAAAATTCAAA  
GCATAGCCCTGAAAGAGAAAGGACAAGGACCCATGTTCTGGATGCAGACTTTGTGGCCTTTACAAATCATTTTA  
AGCAAGTCTTTTCTGATGTGCAGGCCAGAGAGAAAGAGCTACAGACAATTTTTGACACTTTGCCACCAATGCGCT  
ATCAGGAGACCATGAGTGCCATCAGGACATGGGTCCAGCAGTCAGAAACCAAACCTCTCCATACCTCAACTTAGTG  
TCACCGACTATGAAATCATGGAGCAGAGACTCGGGGAATTGCAGGCTTTACAAAGTTCTCTGCAAGAGCAACAAA  
GTGGCCTATACTATCTCAGCACCCTGTGAAAAGAGATGTCGAAGAAAGCGCCCTCTGAAATTAGCCGGAATATC  
AATCAGAATTTGAAGAAATTGAGGGACGCTGGAAGAAGCTCTCCTCCAGCTGGTTGAGCATTGTCAAAAGCTAG  
AGGAGCAAATGAATAAACTCCGAAAAATTCAGAATCACATACAAACCCTGAAGAAATGGATGGCTGAAGTTGATG  
TTTTTCTGAAGGAGGAATGGCCTGCCCTTGGGGATTGAGAAATTCTAAAAAGCAGCTGAAACAGTGCAGACTTT



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**FIGURE 397B**

TAGTCAGTGATATTTCAGACAATTCAGCCCAGTCTAAACAGTGTCAATGAAGGTGGGCAGAAGATAAAGAATGAAG  
CAGAGCCAGAGTTTGCTTCGAGACTTGAGACAGAAGCTCAAAGAAGCTTAACACTCAGTGGGATCACATGTGCCAAC  
AGGTCTATGCCAGAAAGGAGGCCCTTGAAGGGAGGTTTGGAGAAAAGCTGTAAGCCTCCAGAAAGATCTATCAGAGA  
TGCACGAATGGATGACACAAGCTGAAGAAGAGTATCTTGAGAGAGATTTTGAATATAAAAGCTCCAGATGAATTAC  
AGAAAGCAGTTGAAGAGATGAAGAGAGCTAAAGAAGAGGCCCAACAAAAGAAGCGAAAGTGAAAGCTCCTTACTG  
AGTCTGTAAATAGTGTATAGCTCAAGCTCCACCTGTAGCACAGAGGCCCTTAAAAAGGAAGCTTGAAAGCTCTAA  
CCACCAACTACCAGTGGCTCTGCACTAGGCTGAATGGGAAATGCAAGACTTTGGAAGAAGTTTGGGCATGTTGGC  
ATGAGTTATTGTCATACTTGAGAGAAAGCAACAAAGTGGCTAAATGAAGTAGAATTTAAAGCTTAAAGCACTGAAA  
ACATTCCTGGCGGAGCTGAGGAAATCTCTGAGGTGCTAGATTCACTTGAAAATTTGATGCGACATTTCAGAGGATA  
ACCCAAATCAGATTTCGATATTGGCACAGACCCTAACAGATGGCGGAGTCATGGATGAGCTAATCAATGAGGAAC  
TTGAGACATTTAATTCTCGTTGGAGGGAAGTACATGAAGAGGCTGTAAGGAGGCAAAAGTTGCTTGAAACAGAGCA  
TCCAGTCTGCCAGGAGACTGAAAAATCCTTACACTTAATCCAGGAGTCCCTCACATTCATTGACAAGCAGTTGG  
CAGCTTATATTGCAGACAAGGTGGACGCAGCTCAAATGCCTCAGGAAGCCAGAAAATCCAATCTGATTTGACAA  
GTCATGAGATCAGTTTAGAAGAAATGAAGAAACATAATCAGGGGAAGGAGGCTGCCCAAAGAGTCTGTCTCAGA  
TTGATGTTGCACAGAAAAAATTACAAGATGTCTCCATGAAGTTTCGATTATTCCAGAAACCAGCCAATTTTGAGC  
AGCGTCTACAAGAAAGTAAGATGATTTTAGATGAAGTGAAGATGCACCTGCCTGCATTGGAAACAAAGAGTGTGG  
AACAGGAAGTAGTACAGTCACAGCTAAATCATTGTGTGAACTTGTATAAAAGTCTGAGTGAAGTGAAGTCTGAAG  
TGGAATGGTGATAAAGACTGGACGTCAGATTGTACAGAAAAAGCAGACGGAAGTCCCAAAGAACTTGATGAAA  
GAGTAACAGCTTTGAAATTGCATTATAATGAGCTGGGAGCAAGGTAACAGAAAGAAAGCAACAGTTGGAGAAAT  
GCTTGAAATTGTCCCGTAAGATGCGAAAGGAAATGAATGTCTTGACAGAATGGCTGGCAGCTACAGATATGGAAT  
TGACAAAGAGATCAGCAGTTGAAGGAATGCCTAGTAATTTGGATTCTGAAGTTGCCTGGGGAAAGGCTACTCAAA  
AAGAGATTGAGAAACAGAAGGTGCACCTGAAGAGTATCAGAGAGGTAGGAGAGGCCCTTGAAAACAGTTTGGGCA  
AGAAGGAGACGTTGGTGGAAGATAAACTCAGTCTTCTGAATAGTAAGTGGATAGCTGTACCTCCCGAGCAGAAG  
AGTGGTTAAATCTTTTGTGGAATACCAGAAACACATGGAAGTCTTGACCAGAATGTGGACCACATCACAAAGT  
GGATCATTAGGCTGACACACTTTTGGATGAATCAGAGAAAAAGAAACCCAGCAAAAAGAACGCTGCTTAAGC  
GTTTAAAGGCAGAACTGAATGACATACGCCCAAAGGTGGACTCTACACGTGACCAAGCAGCAAACTTGATGGCAA  
ACCGCGGTGACCACTGCAGGAAATTAGTAGAGCCCCAAATCTCAGAGCTCAACCATCGATTTCAGGCCATTTTAC  
ACAGAATTAAGACTGGAAAGGCCCTCCATTCTTTGAAGGAATTGGAGCAGTTTAACTCAGATATACAAAAATTGC  
TTGAACCACTGGAGGCTGAAATTCAGCAGGGGGTGAATCTGAAAGAGGAAGACTTCAATAAAGATATGAATGAAG  
ACAATGAGGGTACTGTAAAAGAATTGTTGCAAGAGGAGACAAGTACAAACAAAGAAATCAGATGAGAGAAAGC  
GAGAGGAAATAAAGATAAAACAGCAGCTGTTACAGACAAAACATAATGCTCTCAAGGATTTGAGGTCTCAAAGAA  
GAAAAAAGGCTCTAGAAATTTCTCATCAGTGGTATCAGTACAAGAGGCAGGCTGATGATCTCCTGAAATGCTTGG  
ATGACATTGAAAAAAATTAGCCAGCCTACCTGAGCCAGAGATGAAAGGAAAAATAAAGGAAATTGATCGGGAAT  
TGCAGAAGAAGAAAGAGGAGCTGAATGCAGTGCCTAGGCAAGCTGAGGGCTTGTCTGAGGATGGGGCCGCAATGG  
CAGTGGAGCCAACTCAGATCCAGCTCAGCAAGCGCTGGCGGGAAATTGAGAGCAAATTTGCTCAGTTTCGAAGAC  
TCAACTTTGCACAAATTCACACTGTCCGTGAAGAAACGATGATGGTGATGACTGAAGACATGCCTTTGGAAATTT  
CTTATGTGCTTCTACTTATTTGACTGAAATCACTCATGTCTCACAAGCCCTATTAGAAGTGAACAACCTTCTCA  
ATGCTCCTGACCTCTGTGCTAAGGACTTTGAAGATCTCTTAAAGCAAGAGGAGTCTCTGAAGAATATAAAAGATA  
GTCTACAACAAAGCTCAGGTCGGATTGACATTATTCATAGCAAGAAGACAGCAGCATTGCAAAGTGCAACGCCTG  
TGGAAGGGGTGAAGCTACAGGAAGCTCTCTCCAGCTTGATTTCCAATGGGAAAAAGTTAACAAATGTACAAGG  
ACCGACAAGGGCGATTGACAGATCTGTTGAGAAATGGCGGCGTTTTTCATTATGATATAAAGATATTTAATCAGT  
GGCTAACAGAAGCTGAACAGTTTCTCAGAAAGACACAAATTCCTGAGAATTGGGAACATGCTAAATACAAATGGT  
ATCTTAAGGAAGCTCCAGGATGGCATTGGGCAGCGGCAAACTGTTGTGAGAACATTGAATGCAACTGGGGAAGAAA  
TAATTCAGCAATCCTCAAAAACAGATGCCAGTATTCTACAGGAAAAATTGGGAAGCCTGAATCTGCGGTGGCAGG  
AGGTCTGCAACAGCTGTGACAGAGAAAAAGAGGCTAGAAGAACAAAGAATATCTTGTGAGAATTTCAAAGAG  
ATTTAAATGAATTTGTTTTATGGTTGGAGGAAGCAGATAACATTGCTAGTATCCCACTTGAACCTGGAAAAGAGC  
AGCAACTAAAAGAAAAGCTTGAGCAAGTCAAGTTACTGGTGAAGAGTTGCCCTGCGCCAGGGAATTTCTCAAC  
AATTAAATGAAACTGGAGGACCCGTGCTTGTAAAGTGTCCATAAGCCAGAAAGAGCAAGATAAACTTGAAAATA

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**FIGURE 397C**

AGCTCAAGCAGACAAATCTCCAGTGGATAAAAGGTTTCCAGAGCTTTACCTGAGAAACAAGGAGAAATTGAAGCTC  
AAATAAAAGACCTTGGGCAGCTTGAAAAAAGCTTGAAGACCTTGAAGAGCAGTTAAATCATCTGCTGCTGTGGT  
TATCTCCTATTAGGAATCAGTTGGAAATTTATAACCAACCAACCAAGAAGGACCATTGACGTTTCAGGAAACTG  
AAATAGCAGTTCAAGCTAAACAACCGGATGTGGAAGAGATTTTGTCTAAAGGGCAGCATTGTTACAAGGAAAAAC  
CAGCCACTCAGCCAGTGAAGAGGAAGTTAGAAGATCTGAGCTCTGAGTGAAGGCGGTAAACCGTTTACTTCAAG  
AGCTGAGGGCAAAGCAGCCTGACCTAGCTCCTGGACTGACCACTATTGGAGCCTCTCCTACTCAGACTGTTACTC  
TGGTGACACAACCTGTGGTTACTAAGGAAACTGCCATCTCCAACTAGAAATGCCATCTTCTTGTATGTTGGAGG  
TACCTGCTCTGGCAGATTTCAACCGGGCTTGGACAGAACTTACCGACTGGCTTTCTCTGCTTGTATCAAGTTATAA  
AATCACAGAGGGTGTATGGTGGGTGACCTTGAAGATATCAACGAGATGATCATCAAGCAGAAGGCAACAATGCAGG  
ATTTGGAACAGAGGCGTCCCCAGTTGGAAGAACTCATTACCGCTGCCCAAATTTGAAAAACAAGACCAGCAATC  
AAGAGGCTAGAACAATCATTACGGATCGAATTGAAAGAATTGAGAATCAGTGGGATGAAGTACAAGAACACCTTC  
AGAACCGGAGGCAACAGTTGAATGAAATGTTAAAGGATTCAACACAATGGCTGGAAGCTAAGGAAGAAGCTGAGC  
AGGTCTTAGGACAGGCCAGAGCCAAGCTTGAGTCATGGAAGGAGGGTCCCTATACAGTAGATGCAATCCAAAAGA  
AAATCACAGAAACCAAGCAGTTGGCCAAAGACCTCCGCCAGTGGCAGACAAATGTAGATGTGGCAAATGACTTGG  
CCCTGAACTTCTCCGGGATTATTCTGCAGATGATACCAGAAAAGTCCACATGATAACAGAGAATATCAATGCCCT  
CTTGAGAAGCATTATATAAAGGGTGAAGTGAAGGAGGCTGCTTTGGAAGAACTCATAGATTACTGCAACAGT  
TCCCCCTGGACCTGGAAGGTTTCTTGCTGGCTTACAGAAGCTGAAACAACCTGCCAATGTCCTACAGGATGCTA  
CCCGTAAGGAAAGGCTCCTAGAAGACTCCAAGGGAGTAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTG  
AAATGAAGCTCACACAGATGTTTATCACAACTGGATGAAAAACAGCCAAAAATCCTGAGATCCCTGGAAGGTT  
CCGATGATGCAGTCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGAGTGAAGTTCGGAAAAAGTCTC  
TCAACATTAGGTCCCATTGGAAGCCAGTTCTGACCAGTGGAGCGTCTGCACCTTTCTCTGCAGGAAGTCTCTG  
TGTGGCTACAGCTGAAAGATGATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGC  
AGAACGATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTG  
TACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAACTCTACCAGGAGCCAGAGAGCTGCCTCCTG  
AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGA  
ACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAAGTTCAGAGGCCACGG  
ATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTG  
ACTCTCTCAAGATCACCTCGAGAAAGTCAAGGCACCTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC  
ACGTCAATGACCTTGCTCGCCAGCTTACCACCTTTGGGCATTGAGCTCTACCGTATAACCTCAGCACTCTGGAAG  
ACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCACAGGG  
ACTTTGGTCCAGCATCTCAGCACTTTCTTTCCAGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACA  
AAGTGCCCTACTATATCAACCACGAGACTCAACAACCTTGCTGGGACCATCCCAAATGACAGAGCTCTACCAGT  
CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAACTCCGAAGACTGCAGAAGGCCC  
TTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACTCAAGCAAAATGACCAGC  
CCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCTGGAGCAAGAGCACAAATTTGG  
TCAACGTCCCTCTCTGCGTGGATATGTGTCTGAAGTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA  
TCCGTGTCCTGTCTTTAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTT  
TCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAA  
TTCCAAGACAGTTGGGTGAAGTGCATCCTTTGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTTCCAAT  
TTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCTAGACTGGATGAGACTGGAACCCAGTCCATGGTGT  
GGCTGCCCGTCTCTGCACAGAGTGGCTGCTGCAGAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGT  
GTCCAATCATTGGATTGAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTG  
GTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGAATATTGCACTCCGACTACATCAGGAGAAGATG  
TTCGAGACTTTGCCAAGGTACTAAAAACAATTCGAACCAAAAGGTATTTTGCGAAGCATCCCCGAATGGGCT  
ACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAGTCCCGTTACTCTGATCAACTTCTGGCCAGTAG  
ATTCTGCGCCTGCCTCGTCCCTCAGCTTTCACACGATGATACTCATTACGCATTGAACATTATGCTAGCAGGC  
TAGCAGAAATGGAACAGCAATGGATCTTATCTAAATGATAGCATCTCTCCTAATGAGAGCATAGATGATGAAC  
ATTTGTTAATCCAGCATTACTGCCAAAGTTGAACCAGGACTCCCCCTGAGCCAGCCTCGTAGTCTGCCCAGA

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**FIGURE 397D**

TCTTGATTTCTTAGAGAGTGAGGAAAGAGGGGAGCTAGAGAGAATCCTAGCAGATCTTGAGGAAGAAAACAGGA  
ATCTGCAAGCAGAATATGACCGTCTAAAGCAGCAGCACGAACATAAAGGCCTGTCCCCACTGCCGTCCCCCTCCTG  
AAATGATGCCACCTCTCCCCAGAGTCCCCGGGATGCTGAGCTCATTGCTGAGGCCAAGCTACTGCGTCAACACA  
AAGGCCGCCTGGAAGCCAGGATGCAAATCCTGGAAGACCACAATAAACAGCTGGAGTCACAGTTACACAGGCTAA  
GGCAGCTGCTGGAGCAACCCCAGGCAGAGGCCAAAGTGAATGGCACAACGGTGTCTCTCCTTCTACCTCTCTAC  
AGAGGTCCGACAGCAGTCAGCCTATGCTGCTCCGAGTGTTGGCAGTCAAACCTTCGGACTCCATGGGTGAGGAAG  
ATCTTCTCAGTCTCCCCAGGACACAAGCACAGGGTTAGAGGAGGTGATGGAGCAACTCAACAACCTCTTCCCTA  
GTTCAAGAGGAAGAAATACCCCTGGAAGCCAATGAGAGAGGACACAATGTAGGAAGTCTTTTCCACATGGCAGA  
TGATTTGGGCAGAGCGATGGAGTCCTTAGTATCAGTCATGACAGATGAAGAAGGAGCAGAATAAATGTTTTACAA  
CTCCTGATTTCCCGCATGGTTTTTATAATATTCATACAACAAAGAGGATTAGACAGTAAGAGTTTACAAGAAATAA  
ATCTATATTTTTGTGAAGGGTAGTGGTATTATACTGTAGATTTCACTAGTTTCTAAGTCTGTTATTGTTTTGTTA  
ACAATGGCAGGTTTTACACGTCTATGCAATTGTACAAAAAGTTATAAGAAAACCTACATGTAAATCTTGATAGC  
TAAATAACTTGCCATTTCTTTATATGGAACGCATTTTGGGTTGTTTAAAAATTTATAACAGTTATAAAGAAAGAT  
TGTAAGTAAAGTGTGCTTTATAAAAAAAGTTGTTTATAAAAAACCCCTAAAAACAAAACACACACACACACA  
CACATACACACACACACACAAAACCTTTGAGGCAGCGCATTGTTTTGCATCCTTTTGGCGTGATATCCATATGAAA  
TTCATGGCTTTTTCTTTTTTGCATATTAAAGATAAGACTTCTCTACCACCACACCAAATGACTACTACACACT  
GCTCATTTGAGAACTGTCAGCTGAGTGGGGCAGGCTTGAGTTTTCATTTTCATATATCTATATGTCTATAAGTATA  
TAAATACTATAGTTATATAGATAAAGAGATACGAATTTCTATAGACTGACTTTTTCCATTTTTTAAATGTTTCATG  
TCACATCCTAATAGAAAGAAATTACTTCTAGTCAGTCATCCAGGCTTACCTGCTTGGTCTAGAATGGATTTTTCC  
CGGAGCCGGAAGCCAGGAGGAACTACACCACACTAAAACATTGTCTACAGCTCCAGATGTTTCTCATTTTTAAAC  
AACTTTCCACTGACAACGAAAGTAAAGTAAAGTATTGGATTTTTTTAAAGGGAACATGTGAATGAATACACAGGA  
CTTATTATATCAGAGTGAGTAATCGGTTGGTTGGTTGATTGATTGATTGATTGATACATTTCAGCTTCTGCTGCT  
AGCAATGCCACGATTTAGATTTAATGATGCTTCAGTGGAATCAATCAGAAGGTATTCTGACCTTGTGAACATCA  
GAAGGTATTTTTTAACCTCCAAGCAGTAGCAGGACGATGATAGGGCTGGAGGGCTATGGATTCCAGCCCATCCC  
TGTGAAGGAGTAGGCCACTCTTTAAGTGAAGGATTGGATGATTGTTTCATAATACATAAAGTTCTCTGTAATTACA  
ACTAAATTATTATGCCCTCTTCTCACAGTCAAAGGAAGTGGGTGGTTTGGTTTTGTTGCTTTTTTAGATTTAT  
TGTCCCATGTGGGATGAGTTTTTAAATGCCACAAGACATAATTTAAATAAAATAAACTTTGGGAAAAGGTGTAAG  
ACAGTAGCCCCATCACATTTGTGATACTGACAGGTATCAACCCAGAAGCCCATGAACTGTGTTTCCATCCTTTGC  
ATTTCTCTGCGAGTAGTTCCACACAGGTTTGTAAGTAAGTAAGAAAGGCAAATGATTCAAATGTTACAAAA  
AAACCCCTCTTGGTGGATTAGACAGGTTAAATATATAAACAACAAACAAAAAATGCTCAAAAAAGAGGAGAAAA  
GCTCAAGAGGAAAAAGCTAAGGACTGGTAGGAAAAAGCTTTACTCTTTCATGCCATTTTATTCTTTTTGATTTTT  
AAATCATTCAATTCAATAGATACCACCGTGTGACCTATAATTTTGCAAATCTGTTACCTCTGACATCAAGTGAAT  
TAGCTTTTGGAGAGTGGGCTGACATCAAGTGAATTAGCTTTTGGAGAGTGGGTTTTGTCCATTATTAATAATTA  
ATTAATTAACATCAAAACACGGCTTCTCATGCTATTTCTACCTCACTTTGGTTTTGGGGTGTTCCTGATAATTGTG  
CACACCTGAGTTACAGCTTCACCACTTGTCATTGCGTTATTTTCTTTTCTTTTATAATTCTTTCTTTTCTCT  
TCATAATTTTTCAAAAGAAAACCCAAAGCTCTAAGGTAACAAATTACCAAATTACATGAAGATTGGTTTTGTCT  
TGCATTTTTTTCTTTATGTGACGCTGGACCTTTTCTTTACCCAAGGATTTTTAAAACTCAGATTTAAACAAGG  
GGTTACTTTACATCCTACTAAGAAGTTTAAGTAAGTAAGTTTCATTCTAAAATCAGAGGTAAATAGAGTGCATAA  
ATAATTTTGTTTTAATCTTTTGTTTTTCTTTTAGACACATTAGCTCTGGAGTGAGTCTGTCAATAATTTGAAC  
AAAAATTGAGAGCTTTATTGCTGCATTTTAAGCATAATTAATTTGGACATTATTTTCGTGTTGTGTTCTTTATAAC  
CACCGAGTATTAACTGTAAATCATAATGTAAGTGAAGCATAAACATCACATGGCATGTTTTGTCTATTGTTTTCA  
GGTACTGAGTTCTTACTTGAGTATCATAATATATTGTGTTTTAACACCAACACTGTAAACATTTACGAATTATTTT  
TTTAACTTCAGTTTTACTGCATTTTCACAACATATCAGACTTCACCAAATATATGCCTTACTATTGTATTATAG  
TACTGCTTTACTGTGTATCTCAATAAAGCACGCAGTTATGTTAC

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FIGURE 398A

MLWWEVEDCYEREDVQKKTFTKWVNAQFSKFGKQHIEENLFSDLQDGRRLDLDLEGLTGQKLPKEKGSTRVHALN  
NVNKAIRVLQNNNVLDVNIIGSTDIVDGNHKLTLGLIWNILHMQVKNVMKNIMAGLQQTNSEKILLSWVRQSTRN  
YPQVNVINFTTSWSDGLALNALIHSRPLDFDWSVVCQSSATQRLEHAFNIARYQLGIEKLLDPEDVDTTYPDK  
KSILMYITSLFQVLPQQVSIIEAIQEVEMLEPRPPKVTKEEHFQLHHQMHYSQQITVSLAQGYERTSSPKPRFKSYA  
YTQAAVYTTSDPTRSPFPSQHLEAPEDKSFGSSLMSEVNLDYQTALEEVLSWLLSAEDTLQAQGEISNDVEVV  
KDQFHTHEGYMDLTAHQGRVGNILQLGSKLIGTGKLSSEDEETEVQEQMNLLNSRWECRLRVASMEKQSNLHRVLM  
DLQNKQLKELNDWLTKTEERTRKMEEEPLGPDLEDLKRQVQQHKVLQEDLEQEQVRVNSLTHMVVVDESSGDHA  
TAALEEQLKVLGDRWANICRWTEDRWVLLQDILLKWQRLTEEQCLFSAWLSEKEDAVNKIHTTGFKDQNEMLSSL  
QKLAVLKADLEKKKQSMGKLYSLKQDLLSTLKNKSVTQKTEAWLDFARCWDNLVQKLEKSTAQISQAVTTTQPS  
LTQTTVMETVTTVTTREQILVKHAQEELPPPPPPQKKRQITVDSEIRKRLDVIDITELHSWITRSEAVLQSPEFAIF  
RKEGNFSDLKEKVNAIEREKAERKRLQDASRSQAALVEQMVNEGVNADSIKQASEQLNSRWIEFCQLLSERLNV  
LEYQNNIIAFYNQLQQLQEQMTTAAENWLKIQPTTPSEPTAKSOLKICKDEVNRLSGLQPOIERLKIQSIALKEK  
GQGPMLDADFAFTNHFKQVFSVQAREKELQTFIDTLPPMRYQETMSAIRTWVQQSETKLSIPQLSVTDYEIM  
EQRLGELQALQSSLEQEQSGLYLSTTVKEMSKKAPSEISRKYQSEFEEIEGRWKKLSSQLVEHCQKLEEQMNKL  
RKIQNHQITLKKWMAEVDVFLKEEWPALGDSEILKKQLKQCRLLVSDIQTIQPSLNSVNEGGQKIKNEAEPEFAS  
RLETELKELNTQWDHMCQQVYARKEALKGGLEKTVSLQKDLSEMHEWMTQAEERYLERDFEYKTPDELQKAVEEM  
KRAKEEAQQKEAKVLLTESVNSVIAQAPPVAQEALKELETLTNYQWLCTRLNGKCKTLEEVWACWHELLSYL  
EKANKWLNEVEFKLKTENIPGGAEEISEVLDSELENLMRHSNPNQIRILAQTLTDGGVMDELINEELETFNSR  
WRELHEEAARRQKLEQSIQSAQETEKSLHLIQESLTFIDKQLAAYIADKVDAAQMPQEAQKIQSDLTSHESLE  
EMKKHNQKGEAAQVLSQIDVAQKKLQDVSMKFRFLQKQPANFEQRLQESKMILDEVKMHLPALETKSVEQEVVQS  
QLNHCNVNLYKSLSEVKSEVEMVIKTGRQIVQKKQTENPKELDERVTALKLHYNELGAKVTERKQQLEKCLKLSRK  
MRKEMNVLTEWLAATDMELTKRSAGEGMPNSLDSEVAGKATQKEIEKQKVHLKSITEVGEALKTVLGKKEITLVE  
DKLSLLNSNWIAVTSRAEENLNLLEYQKHMETFQDQNVDHITKWI IQADTLDESEKKKPPQKEDVLKRLKAEIN  
DIRPKVDSTRDQAANLMANRGDHCRLVLEPQISELNHRFAAISHRIKTGKASIPLEKELEQFNSDIQKLEPLEAE  
IQQGVNLKEEDFNKDMNEDNEGTVKELLQRGDNLQQRITDERKREEIKIKQQLLQTKHNALKDLRSQRRKKALEI  
SHQWYQYKRQADDLLKCLDDIEKKLASLPEPRDERKIKEIDRELQKKKEELNAVRRQAEGLSDEGAAMAVEPTQI  
QLSKRWREIESKFAQFRRLNFAQIHTVREETMMVMTEDMPLAISYVPSTYLTEITHVSQALLEVEQLLNAPDLCA  
KDFEDLFKQEEESLKNIKDSLOQSSGRIDIHSSKTAALQSATPVERVKLQEALSQDLDFQWEKVNKMYKDRQGRFD  
RSVEKWRFRHYDIKIFNQWLTEAEQFLRKTIQIPENWEHAKYKWLKELQDGIGQRQTVVTRLNATGEEIIQSSK  
TDASILQEKLGSLNLRWQEVCKQLSDRKKRLEEQKNILSEFQDLNEFVLWLEADNIAISIPLEPGKEQQLKEKL  
EQVKLLVEELPLRQILKQLNETGGPVLVSAPISPEEQDKLENKQLQTNLQWIKVSRALPEKQGEIEAQIKDLGQ  
LEKKLEDLEEQLNHLNLLWLSPIRNQLEIYNQPNQEGPFDVQETIIVQAKQPDVEEILSKGQHLKYKEKPATQPVK  
RKLEDLSSEWKAVNRLQELRAKQPD LAPGLTTIGASPTQTVTTLVTPVVTKETAIKLEMPSSLMLEVPALADF  
NRAWTELTDWLSLLDQVIKSQRVMVGDLNEMIIKQKATMQDLEQRRPQLEELITAAQNLKKNKTSNQEARTII  
TDRIERIQNQWDEVQEHQNRRLQQLNEMLKDSTQWLEAKEEAEQVLGQARAKLESWKEGPYTVDAIQKKITETKQ  
LAKDLRQWQTNVDVANDLALKLLRDYSADDTRKVHMITENINASWRSIHKRVSERAALAEETHRLQLQFPDLLEK  
FLAWLTEAETTANVLQDATRERLLEDSSKGVKELMKQWQDLQGEIEAHTDVYHNLDENSQKILRSLEGSDDAVLL  
QRRLDNMNFKWSELRKSLNIRSHLEASSDQWKRLHLSLQELLVWLQKDDLSRQAPIGGDFPAVQKQNDVHRA  
FKRELKTKEPVIMSTLETVRIFLTEQPLEGLEKLYQEPRELPPPEERAQNVTRLLRKQAEENVTEWEKLNLSADW  
QRKIDETLERLQELQEATDELDLKLRAEVIKGSWQFVGDLIDSLQDHLEKVKALRGEIAPLKENVSHVNDLAR  
QLTTLGILQSPYNLSTLEDLNRWKLQVAVEDRVRQLHEAHRDFGPASQHFLLSTSVQGPWERAIKSPNKVPYYIN  
HETQTTICWDHPKMTELYQSLADLNNVRFSAYRTAMKLRLQKALCLDLSLSAACDALDQHNKQNDQPMIDILQI  
INCLTTIYDRLEQEHNNLVNPLCVDMLNWLNNVYDTGRTGRIRVLSFKTGIIISLCKAHLEDKYRYLFKQVASS  
TGFCQDQRLGLLLHDSIQIPRQLGEVASFGGSNIEPSVRSCFQFANNKPEIEAALFLDWMRLEPQSMVWLPVLHR  
VAAAEATAKHQAKCNICKECPIIGFRYRSLKHFNYDICQSCFFSGRVAKGHKMHYPMVEYCTPTTSGEDVRDFAKV  
LKNKFRTKRYFAKHPRMGYLPVQTVLEGDNMETPVTLINFWPVSAPASSPQLSHDDTHSRIEHYASRLAEMENS  
NGSYLNDISIPNESIDDEHLLIQHYCQSLNQDSPLSQPRSPAQILISLESEERGELERILADLEENRNLOAEYD  
RLKQOHEHKGSLPLSPPEMMPSTSPQSPRDAELIAEAKLLRQHKGRLEARMQILEDHKNQLESQHLRLRLLEQF

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**FIGURE 398B**

QAEAKVNGTTVSSPSTSLQRSDSSQPMLLRVVGSGTSDSMGEEDLLSPPQDTSTGLEEVMEQLNNSFPSSRGRNT  
PGKPMREDTM

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**FIGURE 399A**

CTTGCAATCCAGGCTTTCTTGGAAAGTGGCTGTAACATGTATGAAAAGAAAGAAAGGAGGACCAAGAGATGAAAG  
AGGGCTGCACGCGTGGGGGCCCCGAGTGGTGGGCGGGGACAGTCGTCTTGTTACAGGGGTGCTGGCCTTCCCTGGC  
GCCTGCCCCGTGTCGGCCCCGCCCCGAGAACCTCCCTGCGCCAGGGCAGGGTTTACTCATCCCGGCGAGGTGATCCC  
ATGCGCGAGGGCGGGCGCAAGGGCGGCCAGAGAACCCAGCAATCCGAGTATGCGGCATCAGCCCTTCCCACCAGG  
CACTTCCTTCTCTTTTCCCGAACGTCCAGGGAGGGAGGGCGGGCACTTATAAACTCGAGCCCTGGCCGATCCGCA  
TGTCAGAGGCTGCCTCGCAGGGGCTGCGCGCACGGCAAGAAGTGTCTGGGCTGGGACGGACAGGAGAGGCTGTCTG  
CCATCGGCGTCTGTGCCCCCTCTGCTCCGGCACGGCCCTGTGCGAGTGGCGCGCTTTCCCCGGCGCTGCACGC  
GGCGCGCCTGGGTAACATGCTTGGGGTCTTGGTCTTGGCGCGCTGGCCCTGGCCGGCCTGGGGTTCCCCGCACC  
CGCAGAGCCGCGAGCCGGGTGGCAGCCAGTGCCTCGAGCAGACTGCTTCGCGCTCTACCCGGGCCCCGCGACCTT  
CCTCAATGCCAGTCAGATCTGCGACGGACTGCGGGGCCACCTAATGACAGTGCCTCTCGGTGGCTGCCGATGT  
CATTTCTTGTACTGAACGGCGACGGCGGCGTGGCCGCCGGCGCCTCTGGATCGGCCTGCAGCTGCCACCCGG  
CTGCGGCGACCCCAAGCGCCTCGGGCCCCGTGCGCGGCTTCCAGTGGGTACGGGAGACAACAACACCAGCTATAG  
CAGGTGGGCACGGCTCGACCTCAATGGGGCTCCCCCTGCGGGCCGTTGTGCGTCTGCTGTCTCCGCTGCTGAGGC  
CACTGTGCCCAGCGAGCCGATCTGGGAGGAGCAGCAGTGCAGTGAAGGCCGATGGCTTCTCTGCGAGTTCCA  
CTTCCCAGCCACCTGCAGGCCACTGGCTGTGGAGCCCGCGCGCGGCTGCCGCCGTCTCGATCACCTACGGCAC  
CCCGTTGCGGGCCCGCGGAGCGGACTTCCAGGCGCTGCCGTTGGGCAGCTCCGCCGCGGTGGCTCCCCCTCGGCTT  
ACAGCTAATGTGCACCGCGCCGCCCGGAGCGGTCCAGGGCACTGGGCCAGGGAGGCGCGGGCGCTTGGGACTG  
CAGCGTGGAGAACGGCGGCTGCGAGCACGCGTGCAATGCGATCCCTGGGGCTCCCCGCTGCCAGTCCCCAGCCGG  
CGCCGCCCTGCAGGCAGACGGGCGCTCCTGCACCGCATCCGCGACGCAGTCTTGCAACGACCTCTGCGAGCACTT  
CTGCGTTCCCAACCCGACCAGCCGGGCTCCTACTCGTGATGTGCGAGACCGGCTACCGGCTGGCGGGCCGACCA  
ACACCGGTGCGAGGACGTGGATGACTGCATACTGGAGCCAGTCCGTGTCCGAGCGCTGTGTCAACACACAGGG  
TGGCTTCGAGTGCCACTGCTACCCTAACTACGACCTGGTGGACGGCGAGTGTGTGGAGCCCGTGGACCCGTGCTT  
CAGAGCCAACTGCGAGTACCAGTGCCAGCCCCCTGAACCAAACTAGCTACCTCTGCGTCTGCGCCGAGGGCTTCGC  
GCCCATTCCCCACGAGCCGACAGGTGCCAGATGTTTTGCAACCAGACTGCCTGTCCAGCCGACTGCGACCCCAA  
CACCAGGCTAGCTGTGAGTGCCCTGAAGGTACATCCTGGACGACGGTTTCATCTGCACGGACATCGACGAGTG  
CGAAAACGGCGGCTTCTGCTCCGGGGTGTGCCACAACCTCCCCGGTACCTTCGAGTGCATCTGCGGGCCCCGACTC  
GGCCCTTGCCCGCCACATTGGCACCGACTGTGACTCCGGCAAGGTGGACGGTGGCGACAGCGGCTCTGGCGAGCC  
CCCGCCAGCCGACGCCCCGGCTCCACCTTGACTCCTCCGGCCGTGGGGCTCGTGCACTCGGGCTTGCTCATAGG  
CATCTCCATCGCGAGCCTGTGCTGGTGGTGGCGCTTTTGGCGCTCCTCTGCCACCTGCGCAAGAAGCAGGGCGC  
CGCCAGGGCCAAGATGGAGTACAAGTGCAGCGCCCCCTTCCAAGGAGGTAGTGTGACGACGTGCGGACCGAGCG  
GACGCCGACAGACTCTTGAGCGGCGCTCCGTCCAGGAGCCTGGCTCCGTCCAGGAGCTGTGCCTCCTACCCCCAG  
CTTTGCTACCAAAGCACCTTAGCTGGCATTACAGCTGGAGAAGACCCTCCCCGCACCCCCCAAGCTGTTTTCTTC  
TATTCCATGGCTAACTGGCGAGGGGGTGATTAGAGGGAGGAGAATGAGCCTCGGCCTCTTCCGTGACGTCACTGG  
ACCACTGGGCAATGATGGCAATTTTGTAAAGACACAGACTGCGATTTGTCCCAGGTCTCACTACCGGGCGC  
AGGAGGGTGAGCGTTATTGGTCGGCAGCCTTCTGGGCAGACCTTGACCTCGTGGGCTAGGGATGACTAAAATATT  
TATTTTTTTTTAAGTATTTAGGTTTTTGTGTTTCTTTGTTCTTACCTGTATGTCTCCAGTATCCACTTTGCAC  
AGCTCTCCGGTCTCTCTCTCTCTACAACTCCCACTTGTCTATGTGACAGGTAACTATCTTGGTGAATTTTTTTT  
TCCTAGCCCTCTCACATTTATGAAGCAAGCCCCACTTATTCCCCATTCTTCCTAGTTTTCTCCTCCAGGAAGTGG  
GGCAACTCACCTGAGTCACCTACCTGTGCCTGACCCTACTTCTTTTGCTCATCTAGCTGTCTGCTCAGACAGA  
ACCCCTACATGAAACAGAAACAAAAACACTAAAAATAAAATGGCCATTTGCTTTTTTACCAGATTTGCTAATTT  
ATCCTGAAATTTAGATTCCCAGAGCAAAATAATTTTAAACAAAGGGTTGAGATGTAAAAGGTATTAAATTGATG  
TTGCTGGACTGTCTAGAAATTACACCCAAAGAGGTATTTATCTTTACTTTTAAACAGTGAGCCTGAATTTTGT  
GCTGTTTTGATTTGTACTGAAAAATGGTAATTGTTGCTAATCTTCTTATGCAATTTCTTTTTTGTATTATTAC  
TTATTTTTGACAGTGTTGAAATGTTTCAAGAGGTGCTCTAGATTGAGAGAAGAGACAAACACCTCCCAGGAGAC  
AGTTCAAGAAAGCTTCAAACCTGCATGATTTCAGCAATTGACTGTCACTGTCTTGTCACTGGTAGA  
CCAAAATAAAACCAGCTCTACTGGTCTTGTGGAATTGGGAGCTTGGGAATGGATCCTGGAGGATGCCCAATTAGG  
GCCTAGCCTTAATCAGGTCTCAGAGAAATTTCTACCATTTTCAAGAGGGCCTTTTGAATGTGGCCCCCTGAACAAG  
AATTGGAAGCTGCCCTGCCCATGGGAGCTGGTTAGAAATGCAGAATCCTAGGCTCCACCCCATCCAGTTCATGAG

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**FIGURE 399B**

AATCTATATTTAACAAGATCTGCAGGGGGTGTGTCTGCTCAGTAATTTGAGGACAACCATTCCAGACTGCTTCCA  
ATTTTCTGGAATACATGAAATATAGATCAGTTATAAGTAGCAGGCCAAGTCAGGCCCTTATTTTCAAGAACTGA  
GGAATTTTCTTTGTGTAGCTTTGCTCTTTGGTAGAAAAGGCTAGGTACACAGCTCTAGACACTGCCACACAGGGT  
CTGCAAGGTCTTTGGTTCAGCTAAGCTAGGAATGAAATCCTGCTTCAGTGTATGGAAATAAATGTATCATAGAAA  
TGTAACTTTTGTAAGACAAAGGTTTTCTCTTCTATTTTGTAAACTCAAATATTTGTACATAGTTATTTATTTA  
TTGGAGATAATCTAGAACACAGGCCAAATCCTTGCTTATGACATCACTTGTACAAAATAAACAAATAACAATGTG

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**FIGURE 400**

MLGVVLVLGALALAGLGFPAPAEPQPGGSQCVEHDCFALYPGPATFLNASQICDGLRGHLMTVRSSVAADVISLLL  
NGDGGVGRRLWIGLQLPPGCGDPKRLGPLRGFQWVTGDNNTSYSRWARLDLNGAPLCGPLCVAVSAAEATVPSE  
PIWEEQQCEVKADGFLCEFHFPAATCRPLAVEPGAAAAAVSITYGTPFAARGADFQALPVGSSAAVAPLGLQLMCT  
APPGAVQGHWAREAPGAWDCSVENGGEHACNAIPGAPRCQCPAGAALQADGRSCTASATQSCNDLCEHFCVNP  
DQPGSYSCMCETGYRLAADQHRCEDVDDCILEPSPCPQRCVNTQGGFECHCYPNYDLVDGECVEPVDPCFRANCE  
YQCQPLNQTSYLCVCAEGFAPIPHEPHRCQMFCNQATACPADCDPNTQASCECPEGYILDDGFICTDIDECENGGE  
CSGVCHNLPGTFECICGPDSALARHIGTDCDSGKVDGGDSGSGEPPPSPTPGSTLTPPAVGLVHSGLLIGISIAS  
LCLVALLALLCHLRKKQGAARAKMEYKCAAPSKEVVLQHVRTERTPQRL



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**FIGURE 401**

GCGGAGCTCTGCCTTGGAGATTCTCAGTGCTGCGGATCATGTCCCTAAGGGGCAGCCTCTCGCGTCTCCTCCAGA  
CGCGAGTGCATTCCATCCTGAAGAAATCCGTCCACTCCGTGGCTGTGATAGGAGCCCCGTTCTCACAAGGGCAGA  
AAAGAAAAGGAGTGGAGCATGGTCCCGCTGCCATAAGAGAAGCTGGCTTGATGAAAAGGCTCTCCAGTTTGGGCT  
GCCACCTAAAAGACTTTTGGAGATTTGAGTTTTACTCCAGTCCCCAAAGATGATCTCTACAACAACCTGATAGTGA  
ATCCACGCTCAGTGGGTCTTGCCAACCAGGAAGTGGCTGAGGTGGTTAGCAGAGCTGTGTGATGGCTACAGCT  
GTGTCACACTGGGAGGAGACCACAGCCTGGCAATCGGTACCATTAGTGGCCATGCCGACACTGCCAGACCTTT  
GTGTTGCTGGGTTGATGCCCATGCTGACATCAACACACCCCTTACCACCTTCATCAGGAAATCTCCATGGACAGC  
CAGTTTCATTTCTCCTCAGAGAACTACAGGATAAGGTACCACAACCTCCAGGATTTTCTGGATCAAACCTTGTA  
TCTCTTCTGCAAGTATTGTGTATATTGGTCTGAGAGACGTGGACCCTCCTGAACATTTTATTTTAAAGAACTATG  
ATATCCAGTATTTTCCATGAGAGATATTGATCGACTTGGTATCCAGAAGGTCATGGAACGAACATTTGATCTGC  
TGATTGGCAAGAGACAAAGACCAATCCATTTGAGTTTTGATATTGATGCATTTGACCCTACACTGGCTCCAGCCA  
CAGGAACCTCCTGTTGTCGGGGGACTAACCTATCGAGAAGGCATGTATATTGCTGAGGAAATACACAATACAGGGT  
TGCTATCAGCACTGGATCTTGTTGAAGTCAATCCTCAGTTGGCCACCTCAGAGGAAGAGGCGAAGACTACAGCTA  
ACCTGGCAGTAGATGTGATTGCTTCAAGCTTTGGTCAGACAAGAGAAGGAGGGGCATATTGTCTATGACCAACTTC  
CTACTCCCAGTTCACCAGATGAATCAGAAAATCAAGCACGTGTGAGAATTTAGGAGACACTGTGCACTGACATGT  
TTCACAACAGGCATTCCAGAATTATGAGGCATTGAGGGGATAGATGAATACTAAATGGTTGTCTGGGTCAATACT  
GCCTTAATGAGAACATTTACACATTCTCACAATTGTAAAGTTTTCCCTCTATTTTGGTGACCAATACTACTGTAA  
ATGTATTTGGTTTTTTGTCAGTTCACAGGGTATTAATATGCTACAGTACTATGTAAATTTAAAGAAGTCATAAACA  
GCATTTATTACCTTGGTATATCATACTGGTCTTGTTGCTGTTGTTTCCTTCACATTTAAGTGGTTTTTTCATCTTTC  
CTCCCTCCTCCACAGCCTGGCTATACAGTGCATCCTTGAAGTGTGAGCCACAGCAGCAATATGCTTATTCTAT  
CCACATCCCTAACATCATGCATTCAAGGTCAAAGTTCTGGTCCACAAACCTTCCCTATAGAAGTTCAATGGC  
TGCGAAAGAATTTGTAGTAAACCAGGCCTCCAGGATGGCGAGCTCCAGTAAGATGATAATGGAAAGCAGCAGCT  
TGTTGGTTGTCACTCTACAAAGAGAAGCAAAGTGGGGAGTAGTCAGAAGTTTGGATAACCTTCTTCTAAACATT  
TGGGGGTTAGACCTGGGACCACGGCTGGATACTCTGAGGCTGTATGTTTGATCACACAGCCACTTAGCAGGAAGT  
ACTCATAAGGTTCTTTAGCTGTCACTTAGGGATAACACTGTCTACCTCACAGAAATGTTAAACTGAGACAATAAA  
ACCCAAAGCAT

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**FIGURE 402**

MSLRGSLSRLLQTRVHSILKKS VHSVAVIGAPFSQGQKRKGVEHGPAAREAGLMKRLSSSLGCHLKDFGDLSFTP  
VPKDDLYNNLI VNP RSVGLANQELAEVVSRAVSDGYSCVTLGGDHSLAIGTISGHARHCPDLCVVWVDAHADINT  
PLTTSSGNLHGQPVSFLLRELQDKVPQLPGFSWIKPCISSASIVYIGLRDVPPEHFI LKNYDIQYFSMRDIDRL  
GIQKVMERTFDLLIGKRQRP IHL SFDIDAFDPTLAPATGTPVVGGLTYREGMYIAEEIHNTGLLSALDLVEVNPQ  
LATSEEEAKTTANLAVDVIASSFQGTREGGHIVYDQLPTPSSPDESENQARVRI

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**FIGURE 403**

AGCGGGGCAGGCCCTACAGCCAATGGAACGGCCCTGGAAGAGACCCGGGTGCGCTCCGGAGCTTCAAAAACATG  
TGAGGAGGGAAGAGTGTGCAGACGGAACCTTCAGCCGCTGCCTCTGTTCTCAGCGTCAGTGCCGCCACTGCCCCG  
CCAGAGCCCACCGGCCAGCATGTCCTCTGCTCACTTCAACCGAGGCCCTGCCTACGGGCTGTGAGCCGAGGTTAA  
GAACAAGCTGGCCCAGAAGTATGACCACCAGCGGGAGCAGGAGCTGAGAGAGTGGATCGAGGGGGTGACAGGCCG  
TCGCATCGGCAACAACCTTCATGGACGGCCTCAAAGATGGCATCATTCTTTGCGAATTCATCAATAAGCTGCAGCC  
AGGCTCCGTGAAGAAGATCAATGAGTCAACCCAAAATTGGCACCAGCTGGAGAACATCGGCAACTTCATCAAGGC  
CATCACCAGTATGGGGTGAAGCCCCACGACATTTTGGAGCCAACGACCTGTTTGAGAACACCAACCATACACA  
GGTGCAGTCCACCCTCCTGGCTTTGGCCAGCATGGCGAAGACGAAAGGAAACAAGGTGAACGTGGGAGTGAAGTA  
CGCAGAGAAGCAGGAGCGGAAATTCGAGCCGGGGAAGCTAAGAGAAGGGCGGAACATCATTGGGCTGCAGATGGG  
CACCAACAAGTTTGGCAGCCAGCAGGGCATGACGGCCTATGGCACCCGGCGCCACCTCTACGACCCCAAGCTGGG  
CACAGACCAGCCTCTGGACCAGGCGACCATCAGCCTGCAGATGGGCACCAACAAAGGAGCCAGCCAGGCTGGCAT  
GACTGCGCCAGGGACCAAGCGGCAGATCTTCGAGCCGGGGCTGGGCATGGAGCACTGCGACACGCTCAATGTCAG  
CCTGCAGATGGGCAGCAACAAGGGCGCCTCGCAGCGGGGCATGACGGTGTATGGGCTGCCACGCCAGGTCTACGA  
CCCCAAGTACTGTCTGACTCCCGAGTACCCAGAGCTGGGTGAGCCCGCCCACAACCACCACGCACACAACCTACTA  
CAATTCCGCCTAGGGCCACAAGGCCTTCCCTGTTTTCCCCCAAGGGAGGCTGCTGCTGCTCTTGGCTGGACCCA  
GCCAGGCCCAGCCGACCCCTCTCCCTGCATGGCATCCTCCAGCCCTGTAGAACTCAACCTCTACAGGGTTAGA  
GTTTGGAGAGAGCAGACTGGCGGGGGGCCATTGGGGGGAAGGGGACCCTCCGCTCTGTAGTGCTACAGGGTCCA  
ACATAGAGCCGGGTGTCCCCAACAGCGCCCAAAGGACGCACTGAGCAACGCTATTCCAGCTGTCCCCCACTCCC  
TCACAAGTGGGTACCCCCAGGACCAGAAGCTCCCCCAGCAAAGCCCCCAGAGCCCAGGCTCGGCCTGCCCCCAC  
CCCATTCCCGCAGTGGGAGCAAACCTGCATGCCCAGAGACCCAGCGGACACACGCGGTTTGGTTTGCAGCGACTGG  
CATACTATGTGGATGTGACAGTGGCGTTTGTAAATGAGAGCACTTTCTTTTTTTTCTATTTCACTGGAGCACAATA  
AATGGCTGTAAATCTCAAAAAAAAAAAAAA

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**FIGURE 404**

MSSAHFNRGPAYGLSAEVKNKLAQKYDHQREQLREWIEGVTGRRIGNNFMDGLKDGIILCEFINKLQPGSVKKI  
NESTQNWHQLENIGNFIKAITKYGVKPHDIFEANDLFENTNHTQVQSTLLALASMAKTGKNKVNVGVKYAEKQER  
KFEPGKLREGRNIIGLQMGTNKFASQQGMTAYGTRRHLYDPKLGTDQPLDQATISLQMGTNKGASQAGMTAPGTK  
RQIFEPGLGMEHCDTLNVSLQMGSNKGASQRGMTVYGLPRQVYDPKYCLTPEYPELGEPAHNHHAHNYNSA

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**FIGURE 405**

GGATCCGCGTGCTAAAGAAAAATCGCCGTTAAAGCAGTTTTCTTTTTCACTGTCTTTTTCTTTTCGCGGGGAACC  
CAGCTGTTCCCTGCGAGGGCCACCTCCTCAGGAAGACCCCGCAGCTCTCCCGCGGCGCTTCTGCAGGAGGCAGCGA  
CAGTTTCGAGAACCCGGGCCTTCCCCTCCCAGTGCCTCCGGGGGTTTCGCGTTTCAGGCGCTCGTGTTTTCCGGGA  
AGGGCAGGCGCGCTGGGCCTTGGGGAGCTGCGCTCGGCGGGCGGACCGGGGGATCATGGAAGCTGATAAAGATGA  
CACACAACAAATTCTTAAGGAGCATTGCCAGATGAATTTATAAAAGATGAACAAAATAAGGGACTAATTGATGA  
AATTACAAAGAAAAATATTTCAGCTAAAGAAGGAGATCCAAAAGCTTGAAACGGAGTTACAAGAGGCTACCAAAGA  
ATTCCAGATTAAAGAGGATATTCCCTGAAACAAAGATGAAATTCTTATCAGTTGAAACTCCTGAGAATGACAGCCA  
GTTGTCAAATATCTCCTGTTTCGTTTCAAGTGAGCTCGAAAGTTCTTATGAGATACAAAAGGACAAGCACTTAT  
CACCTTTGAAAAAGAAGAAGTTGCTCAAATGTGGTAAGCATGAGTAAACATCATGTACAGATAAAAGATGTAAA  
TCTGGAGGTTACGGCCAAGCCAGTTCCATTAAATTCAGGAGTCAGATTCCAGGTTTATGTAGAAGTTTCTAAAT  
GAAAATCAATGTTACTGAAATTCCTGACACACTGCGTGAAGATCAAATGAGAGACAACTAGAGCTGAGCTTTTC  
AAAGTTCCGAAATGGAGGCGGAGAGGTGGACCGCTGGACTATGACAGACAGTCCGGGAGTGCAGTCATCACGTT  
TGTGGAGATTGGAGTGGCTGACAAGATTTTGAAAAAGAAAGAATACCCTCTTTATATAAATCAAACCTGCCATAG  
AGTTACTGTTTCTCCATACACAGAAATACACTTGAAAAAGTATCAGATATTTTCAGGAACATCTAAGAGGACAGT  
GCTTCTGACAGGAATGGAAGGCATTCAAATGGATGAAGAAATTGTGGAGGATTTAATTAACATTCACTTTCAACG  
GGCAAAGAAATGGAGGTGGAGAAGTAGATGTGGTCAAGTGTTCTCTAGGTCAACCTCACATAGCATACTTTGAAGA  
ATAGACTTAACAGAATCATGAAAACATAGCTTTTTTAACCCGATTACTGTAAATGTTTGACAAGAATGAATATG  
CTTTTCCTTAAAAAATGAAAACTTTAATTTTTTACCATCCATTTATGTTTAGATACAAAACCTATTTCCATGTTTC  
TGAATCTTCTTTGTTTCAAATGGTGCTGCATGTTTTCAACTACAATAAGTGCACTGTAATAAAAAGTTTTGTTTA  
T

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**FIGURE 406**

MEADKDDTQQILKEHSPDEFIKDEQNKGLIDEITKKNIQLKKEIQKLETELQEATKEFQIKEDIPETKMKFLSVE  
TPENDSQLSNISCSFQVSSKVPYEQKGQALITFEKEEVAQNVVSMKHHVQIKDVNLEVTAKPVPLNSGVRVQV  
YVEVSKMKINVTEIPDTLREDQMRDKLELSFSKFRNGGGEVDRVDYDRQSGSAVITFVEIGVADKILKKKEYPLY  
INQICHRTVTVSPYTEIHLKKYQIFSGTSKRTVLLTGMEGIQMDEEIVEDLINIHFORAKNGGGEVDVVKCSLGQP  
HIAYFEE

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**FIGURE 407**

TGCAGCTTCCTTCTCACCTTGAAGAATAATCCTAGAAAACTCACAAAATGTGTGATGCTTTTGTAGGTACCTGGA  
AACTTGTCTCCAGTGAAAACCTTTGATGATTATATGAAAGAAGTAGGAGTGGGCTTTGCCACCAGGAAAAGTGGCTG  
GCATGGCCAAACCTAACATGATCATCAGTGTGAATGGGGATGTGATCACCATTAAATCTGAAAAGTACCTTTAAAA  
ATACTGAGATTTCTTCATACTGGGCCAGGAATTTGACGAAGTCACTGCAGATGACAGGAAAAGTCAAGAGCACCA  
TAACCTTAGATGGGGGTGTCCTGGTACATGTGCAGAAATGGGATGGAAAATCAACCACCATAAAGAGAAAACGAG  
AGGATGATAAACTGGTGGTGGAAATGCGTCATGAAAGGCGTCACCTCCACGAGAGTTTATGAGAGAGCATTAAGCCA  
AGGGACGTTGACCTGGACTGAAGTTCGCATTGAACTCTACAACATTCTGTGGGATATATTGTTCAAAAAGATATT  
GTTGTTTTCCCTGATTTAGCAAGCAAGTAATTTCTCCCAAGCTGATTTTATTCAATATGGTTACGTTGGTTAAA  
TAACTTTTTTTAGATTTAG

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**FIGURE 408**

MCDAFVGTWKLVSSENFDDYMKEVGVGFATR KVAGMAKPNMIISVNGDVITIKSESTFKNTEISFILGQEFDEVT  
ADDRKVKSTITLDGGVLVHVQKWDGKSTTIKRKREDDKL VVECV MKGVTSTRVYERA



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**FIGURE 409**

GGCGGGGGGCGCACAGAGCCAGAGGGGCTTGCGAGCGGCGGCTGAGGGACCGCGGGGAGGGGGCGCCGAGCGGCT  
CCAGCGCAGAGACTCTCACTGCACGCCGAGGCCCCCTTCCTCGCTCCGCCCCGCGCGACCGCGCGCCCCAGTCCCCG  
CCCCGCCCCGCTAACC GCCCCAGACACAGCGCTCGCCGAGGGTTCGCTTGACCTGATCTTACCCGTGGGCACCC  
TGCGCTCTGCGCTGCCGCGAAGACCGGCTCCCCGACCCGCGAGAAGTCAGGAGAGAGGGTGAAGCGGAGCAGCCGA  
GGCGGGGCGAGCCTCCCGGAGCAGCGCCGCGCAGAGCCCGGGACAATGGGGCCGCGGCGGCTGCTGCTGGTGGCCG  
CCTGCTTCAGTCTGTGCGGCCCCGCTGTTGTCTGCCCGCACCCGGGCCCCGAGGCCAGAATCAAAAGCAACAAATG  
CCACCTTAGATCCCCGGTCATTTCTTCTCAGGAACCCCAATGATAAATATGAACCATTTTGGGAGGATGAGGAGA  
AAAATGAAAGTGGGTTAACTGAATACAGATTAGTCTCCATCAATAAAAGCAGTCCTCTTCAAAAACAACCTTCCTG  
CATTTCATCTCAGAAGATGCCTCCGGATATTTGACCAGCTCCTGGCTGACACTCTTTGTCCCATCTGTGTACACCG  
GAGTGTGTTGTAGTCAGCCTCCCACTAAACATCATGGCCATCGTTGTGTTTCATCCTGAAAATGAAGGTCAAGAAGC  
CGGCGGTGGTGTACATGCTGCACCTGGCCACGGCAGATGTGCTGTTGTGTCTGTGCTCCCCCTTTAAGATCAGCT  
ATTACTTTTCCGGCAGTGATTGGCAGTTTGGGTCTGAATTGTGTGCTTCGCTCACTGCAGCATTTTACTGTAAACA  
TGACGCCCTCTATCTTGCTCATGACAGTCATAAGCATTGACCGGTTTCTGGCTGTGGTGTATCCCATGCAGTCCC  
TCTCTGGCGTACTCTGGGAAGGGCTTCCTTCACTTGTCTGGCCATCTGGGCTTTGGCCATCGCAGGGGTAGTGC  
CTCTCGTCTCAAGGAGCAAACCATCCAGGTGCCCGGGCTCAACATCACTACCTGTCATGATGTGCTCAATGAAA  
CCCTGCTCGAAGGCTACTATGCCTACTACTTCTCAGCCTTCTCTGCTGTCTTCTTTTTTGTGCCGCTGATCATTT  
CCACGGTCTGTTATGTGTCTATCATTGATGTCTTAGCTCTTCCGCAAGTTGCCAACCAGCAAGAAGTCCCCGGG  
CTTTGTTCTGTGCTGCTGTTTTCTGCATCTTCATCATTTGCTTCGGACCCACAAACGTCCTCTGATTGCGC  
ATTACTCATTCCTTTCTCACACTTCCACCACAGAGGCTGCCTACTTTGCCTACCTCCTCTGTGTCTGTGTGTCAGCA  
GCATAAGCTCGTGCATCGACCCCTAATTTACTATTACGCTTCTCTGAGTGCCAGAGGTACGTCTACAGTATCT  
TATGCTGCAAAGAAAGTTCCGATCCAGCAGTTATAACAGCAGTGGGCAGTTGATGGCAAGTAAATGGATACCT  
GCTCTAGTAACCTGAATAACAGCATATACAAAAGCTGTTAACTTAGGAAAAAGGGACTGCTGGGAGGTTAAAAAG  
AAAAGTTTATAAAAGTGAATAACCTGAGGATTCTATTAGTCCCCACCCAAACTTTATTGATTACCTCCTAAAAC  
AACAGATGTACGACTTGCATACCTGCTTTTTATGGGAGCTGTCAAGCATGTATTTTTGTCAATTACCAGAAAGAT  
AACAGGACGAGATGACGGTGTTATTCCAAGGGAATATTGCCAATGCTACAGTAATAAATGAATGTCACCTTCTGGA  
TATAGCTAGGTGACATATACATACTTACATGTGTGTATATGTAGATGTATGCACACACATATATTATTGTCAGTG  
CAGTATAGAATAGGCACCTTTAAACACTCTTTCCCCGACCCAGCAATTATGAAAATAATCTCTGATTCCCTGA  
TTTAATATGCAAAGTCTAGGTTGGTAGAGTTTAGCCCTGAACATTTTCATGGTGTTTCATCAACAGTGAGAGACTCC  
ATAGTTTGGGCTTGTACCCTTTTGCAAATAAGTGTATTTTGAATTTGTTGACGGCAAGGTTTAAGTTATTAAG  
AGGTAAGACTTAGTACTATCTGTGCGTAGAAGTTCTAGTGTGTTTCAATTTTAAACATATCCAAGTTTGAATTCCT  
AAAATTATGGAACAGATGAAAAGCCTCTGTTTTGATATGGGTAGTATTTTTTACATTTTACACACTGTACACAT  
AAGCCAAAACCTGAGCATAAGTCTCTAGTGAATGTAGGCTGGCTTTCAGAGTAGGCTATTCTGAGAGCTGCATG  
TGTCCGCCCCGATGGAGGACTCCAGGCAGCAGACATGCCAGGGCCATGTCAGACACAGATTGGCCAGAAACC  
TTCTGCTGAGCCTCACAGCAGTGAGACTGGGGCCACTACATTTGCTCCATCCTCCTGGGATTGGCTGTGAACTG  
ATCATGTTTATGAGAACTGGCAAAGCAGAATGTGATATCCTAGGAGGTAATGACCATGAAAGACTTCTCTACCC  
ATCTTAAAAACAACGAAAGAAGGCATGGACTTCTGGATGCCCATCCACTGGGTGTAAACACATCTAGTAGTTGTT  
CTGAAATGTCAGTTCTGATATGGAAGCACCCATTATGCGCTGTGGCCACTCCAATAGGTGCTGAGTGTACAGAGT  
GGAATAAGACAGAGACCTGCCCTCAAGAGCAAAGTAGATCATGCATAGAGTGTGATGTATGTGTAATAAATATGT  
TTCACACAAACAAGGCCTGTCAGCTAAAGAAGTTTGAACATTTGGGTTACTATTTCTGTGGTTATAACTTAATG  
AAAACAATGCAGTACAGGACATATATTTTTTAAATAAGTCTGATTTAATTGGGCACTATTTATTTACAAATGTT  
TTGCTCAATAGATTGCTCAAATCAGGTTTTCTTTTAAGAATCAATCATGTGCTGCTTAGAAATAACAGAAGA  
AAATAGAATTGACATTGAAATCTAGGAAAATTATTCTATAATTTCCATTTACTTAAGACTTAATGAGACTTTAAA  
AGCATTTTTTAACTCCTAAGTATCAAGTATAGAAAATCTTCATGGAATTCACAAAAGTAATTTGGAAATTAGGTT  
GAAACATATCTCTTATCTTACGAAAAAATGGTAGCATTTTAAACAAAATAGAAAGTTGCAAGGCAAATGTTTATT  
TAAAAGAGCAGGCCAGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCTGAGGCGGGTGGATCACG  
AGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCGTCTCTACTAAAAATGCAAAAAAATTAGCCG  
GGCGTGGTGGCAGGCACCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGAGACTGGCGTGAACCCAGGAGGCG  
GACCTTGTAGTGAGCCGAGATCGCGCCACTGTGCTCCAGCCTGGGCAACAGAGCAAGACTCCATCTC

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**FIGURE 410**

MGPRRLLLVAACFSLCGPLLSARTRARRPESKATNATLDPRSFLLRNPNDKYEPFWEDEEKNESGLTEYRLVSIN  
KSSPLQKQLPAFISEDASGYLTSSWLTTLFVPSVYTGVFVVSPLNIMAIVVFILKMKVKKPAVVYMLHLATADVL  
FVSVLPFKISYYFSGSDWQFGSELCRFVTAAFYCNMYASILLMTVISIDRFLAVVYPMQSLSWRTLGRASF TCLA  
IWALAIAGVVPLVLKEQTIQVPGLNITTCHDVLNETLLEGYYAYYFSAFSAVEFFVPLIISTVCYVSIIRCLSSS  
AVANRSKKSRAFLSAAVFCIFIICFGPTNVLLIAHYSFLSHTSTTEAAYFAYLLCVCVSSISSCIDPLIYYYAS  
SECQRYVYSILCCKESSDPSSYNSSGQLMASKMDTCSSNLNNSIYKKLLT

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**FIGURE 411**

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACCATCGTGCTGTCTCCTGCCGACAAGACCAACGTCAAGGC  
CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC  
CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGGT  
GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCCACGCGCTGTCCGCCCTGAGCGACCTGCA  
CGCGCACAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCCTGGCCGCCCA  
CCTCCCCGCCGAGTTCACCCCTGCGGTGCACGCCCTCCCTGGACAAGTTCCTGGCTTCTGTGAGCACCGTGCTGAC  
CTCCAAATACCGTTAAGCTGGAGCCTCGGTAGCCGTTCTCTGCCCCTGGGCCTCCCAACGGGCCCTCCTCCC  
CTCCTTGACCGGCCCTTCTGGTCTTTGAATAAAGTCTGAGTGGGCGGC

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**FIGURE 412**

MVLSPADKTNVKAAWGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHV  
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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**FIGURE 413**

CCACGCCTGCATCTTGCGGAAAGCGGGGTGGAGGTTTAGGGCTGGACTCTTGGGTCCTTTAAAGGTGAGTGGTCT  
GGGGGCCTCTGGGCTTGGGGCCAGACCCCTGGGTCCTCTATGAAAGAACGTGCTGGGGACCCTGATTTTGGGATG  
TTAGAAAGTTGGAACCTTTTTGTTCTGATAGGGGAAGGTAGTGGGGCTCCGGACTCCCGACTCCCGGGGAAAGAG  
TGGGCTGGGGTTTTCTGCTTCTGGATCTTAGGAAGAGGATAGGGTCAGTCTGGACTACTTGGCCTCCAGTGGGTGG  
AAGTCCGGTTCTGCGCCCTCACCTGGGTCCCCCGTTCCCGATGTTTCGAGCCTGTGAGCTGCACCTTCACGTACC  
TGCTGGGTGACGGAGAGTCCCGGGAGGCCGTTCTGATCGACCCAGTCCTGGAAACAGCGCCTCGGGATGCCCAGC  
TGATCAAGGAGCTGGGGCTGCGGCTGCTCTATGCTGTGAATACCCACTGCCACGCGGACCACATTACAGGCTCGG  
GGCTGCTCCGTTCCCTCCTCCCTGGCTGCCAGTCTGTCACTCTCCCGCCTTAGTGGGGCCCAGGCTGACTTACACA  
TTGAGGATGGAGACTCCATCCGCTTCGGGCGCTTCGCGTTGGAGACCAGGGCCAGCCCTGGCCACACCCAGGCT  
GTGTCACCTTCGTCCTGAATGACCACAGCATGGCCTTCACTGGAGATGCCCTGTTGATCCGTGGGTGTGGGCGGA  
CAGACTTCCAGCAAGGCTGTGCCAAGACCTTGTACCACTCGGTCCATGAAAAGATCTTCACACTTCCAGGAGACT  
GTCTGATCTACCCTGCTCACGATTACCATGGGTTTACAGTGTCCACCGTGGAGGAGGAGAGGACTCTGAACCCTC  
GGCTCACCCCTCAGCTGTGAGGAGTTTGTCAAAATCATGGGCAACCTGAACTTGCCTAAACCTCAGCAGATAGACT  
TTGCTGTTCCAGCCAACATGCGCTGTGGGGTGCAGACACCCACTGCCTGATCTCACTTCTGTCAGATGCTCCCAT  
CCACTATTAATGCACTAGGTGGGAGGAGAGGGCGGCAATGACACTGCACCTCTCCTTTCCACCGCATTCCTGA  
GCTCCCTAAATAAACTTTTTTTAACGTG

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**FIGURE 414**

MFEPVSCTFTYLLGDGESREAVLIDPVLETAPRDAQLIKELGLRLLYAVNTHCHADHITGSGLLRSLLPGCQSVI  
SRLSGAQADLHIEDGDSIRFGRFALETRASPGHTPGCVTFVLNDHSMAFTGDALLIRGCGRTDFQQGCAKTLYHS  
VHEKIFTLPGDCLIYPADYHGFTVSTVEEERTLNPRLTLSCEEVFKIMGNLNLPKPQQIDFAVPANMRCGVQTP  
TA

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**FIGURE 415**

AGCGGCCGCGCCGCCACAGCTGCAGTCAGCACCGTCACCCAGCAGCATCCGCGCGCCTGCACCGCGCGTGCGG  
CCCCCCCCGCGCTGACCCCGCCGCCGAACCCGGCGCCAGCCATGGAGCCCCGAAGCCCCCGTCGCGCCACACCC  
ATCAGCGCGGCTACCTGCTGACACGGAACCTCACCTCAACAAGGACTTGGCCTTTACCCTGGAAGAGAGACAGC  
AATTGAACATTCATGGATTGTTGCCACCTTCCTTCAACAGTCAGGAGATCCAGGTTCTTAGAGTAGTAAAAAATT  
TCGAGCATCTGAACTCTGACTTTGACAGGTATCTTCTCTTAATGGATCTCCAAGATAGAAATGAAAACTCTTTT  
ATAGAGTGCTGACATCTGACATTGAGAAATTCATGCCTATTGTTTTATACTCCCACTGTGGGTCTGGCTTGCCAAC  
AATATAGTTTGGTGTTTCGGAAACCAAGAGGTCTCTTTATTACTATCCACGATCGAGGGCATATTGCTTCAGTTC  
TCAATGCATGGCCAGAAGATGTCATCAAGGCCATTGTGGTGACTGATGGAGAGCGTATTCTTGGCTTGGGAGACC  
TTGGCTGTAATGGAATGGGCATCCCTGTGGGTAAATTGGCTCTATATACAGCTTGGCGAGGGATGAATCCTCAAG  
AATGTCTGCCGTGCATTCTGGATGTGGGAACCGAAAATGAGGAGTTACTTAAAGATCCACTCTACATTGGACTAC  
GGCAGAGAAGAGTAAGAGGTTCTGAATATGATGATTTTTTGGACGAATTCATGGAGGCAGTTTCTTCCAAGTATG  
GCATGAATTGCCCTTATTCAGTTTGAAGATTTTGCCAATGTGAATGCATTCGTCTCCTGAACAAGTATCGAAACC  
AGTATTGCACATTCATGATGATATTCAAGGAACAGCATCTGTTCAGTTGCAGGTCTCCTTGCAGCTCTTCGAA  
TAACCAAGAACAACCTGTCTGATCAACAATACTATTCCAAGGAGCTGGGGAGGCTGCCCTAGGGATTGCACACC  
TGATTGTGATGGCCTTGGAAGAAAGAGGTTTACCAAAAGAGAAAGCCATCAAAAAGATATGGCTGGTTGATTCAA  
AAGGATTAATAGTTAAGGGACGTGCTTCCTTAACACAAGAGAAAGAGAAGTTTGGCCATGAACATGAAGAAATGA  
AGAACC TAGAAGCCATTGTTCAAGAAATAAAACCAACTGCCCTCATAGGAGTTGCTGCAATTGGTGGTGCATTCT  
CAGAACAAATTCTCAAAGATATGGCTGCCTTCAATGAACGGCCTATTATTTTTGCTTTGAGTAATCCAAC TAGCA  
AAGCAGAATGTTCTGCAGAGCAGTGCTACAAAATAACCAAGGGACGTGCAATTTTTGCCAGTGGCAGTCCTTTTG  
ATCCAGTCACTCTTCCAAATGGACAGACCCTATATCCTGGCCAAGGCAACAATTCCTATGTGTTCCCTGGAGTTG  
CTCTTGGTGTTGTGGCGTGTGGATTGAGGCAGATCACAGATAATTTTTCTCACTACTGCTGAGGTTATAGCTC  
AGCAAGTGTCAGATAAACACTTGGAAGAGGGTCGGCTTTATCCTCCTTTGAATACCATTAGAGATGTTTCTCTGA  
AAATTGCAGAAAAGATTGTGAAAGATGCATACCAAGAAAAGACAGCCACAGTTTATCCTGAACCGCAAAACAAAG  
AAGCATTGTGCCGTCCCAGATGTATAGTACTGATTATGACCAGATTCTACCTGATTGTTATTCTTGGCCTGAAG  
AGGTGCAGAAAATACAGACCAAAGTTGACCAGTAGGATAATAGCAAACATTTCTAACTCTATTAATGAGGTCTTT  
AAACCTTTTCATAATTTTTAAAGGTTGGAATCTTTTATAATGATTTCATAAGACACTTAGATTAAGATTTTACTTTA  
ACAGTCTAAAAATTGATAGAAGAATATCGATATAAATTGGGATAAACATCACATGAGACAATTTTGCTTCACTTT  
GCCTTCTGGTTATTTATGGTTTCTGTCTGAATTATTCTGCCTACGTTCTCTTTAAAAGCTGTTGTACGTACTACG  
GAGAACTCATCATTTTTTATACAGGACACTAATGGGAAGACCAAAATTACTAATAAATTGACATAACCAACATTA  
AACTCATAATTATTTTGTGACCATTTTGTAAAATCTACTTTTTCAAAAAAAAAAAGCTAGAAATGAATCTAG  
GCGTAGGTGAACTTTTGCTAAGCAGAAATAACACTACTTTGTTGCCTAGAGAAAGATAACTTCTCAAGTATTTTT  
ATTCCAGTCTTAGATCATATATGTTCTTTTGTGCAACGGAATTCTAACAGTTCTAAGAGAAAGATCACTGCTGTT  
TACAGCGCCTTGTGCAGCCTTAGATTTTAAATATTCTTTTGTCAATTGTTACATCTCATAGAGTAAAGCTCTTATTA  
CCTTGATCCTGAGTCAGAAATCCCACCTGAAATCACCTTTTTTCCCCCTTGATCAAACATCCCATCCTTCAGCTA  
CCATACTGTTGCTACAGGGATTTTGTGGACTGTGGCCCTGTCCCAGGTTGGCACCTTCAGTTCAGCACAGCCT  
GAGCAGTGAGAAGGTCTGAAAGGAGAGTATATAGTTAAGATCCTTGAGAAAGGGCTGCCTGAGGAAGTACCTCT  
TAAAGATCTCAGGATCTTTAAGACAACAAGTTAGGTTCTACTGGAGTTACCTGCCAGAATGGCCTCTTAATTAA  
CTCAGGTAATGAAGAGCTAACTGTGTTATAATCATCTTGCTTTTGCTGAAATTTGGAGAAAGTATTATAATTAAG  
TTCCAGTATCAGAAATGTCCCTTACATAAGATTAAATATCTTGATGACTAATACCATTCTATGAGAAAGAGTAG  
TTATATGCCCAGACTGTATTAATTTACTTTAGAACTAATGTTTGAAGTAATGAAAAAATTTTAAATTATAAAG  
CTAAGGTGCAATAACATTTGCTACTTATTTATAGAATTATTTGAAGAATTTGTTTTGAAGTAATGCTTTAAGG  
AGTATAAGATATTCAAGATAAATTATACTATAAAATGATTTTATTGAAAGTTGAAGGTTACACAAATTGTTTTAG  
GTATGAGCAGAAGAGGTTAAGGTATTTCTAAAGGTAACATATAGTCAAGAGTTTCTCAAAATAGTTATTTGGAG  
AAGAATCAGAATGTCTGTGATTTCTGTCTGTTTCTATGTTGTCTTATAGCTCTGACTAAATGTGTTTACCTAT  
GCAAAAGATTTTATTAAGCATAGAAAAGGTGAATGAATAACACCCTAAACCCCCCGAAGAGAAAAAGAAATCCCG  
AAGAGAGAGAGCAACACACCTGAGAACATCCGCTGAGTAAGTAGCCCGCTAGGAGAAAAAGAAAAAGGGGGGGCC  
CCCCCGACTAAGAGGGCCCCCTTCCGCCCCCGGGGAATTTATTT

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**FIGURE 416**

RPPPPQLQSAPSPQQHPRACTARAARFGLTPPPNPAPAMEPEAPRRRHTHQRGYLLTRNPHLNKDLAFTLEERQQ  
LNIHGLLPSPFNSQEIQVLRVVKNFEBLNSDFDRYLLMLDQDRNEKLFYRVLTSDIEKFMPIVYTPTVGLACQQ  
YSLVFRKPRGLFITIHDRGHIAVLNAPWEDVIKAIIVTDGERILGLGDLGCNGMGIPVGKLALYTACGMNPQE  
CLPVILDVGTENEELLKDPLYIGLRQRRVRGSEYDDFLDEFMEAVSSKYGMNCLIQFEDFANVNAFRLNKKYRNQ  
YCTFNDDIQGTASVAVAGLLAALRITKNKLSDQTILFQGAGEAALGIAHLIVMALEKEGLPKEKAIKKIWLVDK  
GLIVKGRASLTQEKEKFAHEHEEMKNLEAIVQEIKPTALIGVAAIGGAFSEQILKDMAAFNERPIIFALSNPTSK  
AECSAEQCYKITKGRAIFASGSPFDPVTLPNGQTLYPGQGNNSYVFPGVACGLRQITDNIFLTAEVIAQ  
QVSDKHLEEGRLYPPLNTIRDVSLKIAEKIVKDAYQEKATVYPEPQNKEAFVRSQMYSTDYDQILPDCYSWPEE  
VQKIQTQVDQ



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**FIGURE 417**

TGCTGCTCTCCTCCCGCTCCGTCTCTCGCCTGCCACCGGTGCACCCAGTCCGCTCACCCAGCCCAGTCCGTCC  
GGTCCTCACCGCCTGCCGGCCGGCCCCACCCCCACCGCAGGCCATGGACGCCATCAAGAAGAAGATGCAGATGCT  
GAAGCTGGACAAGGAGAACGCCATCGACCGCGCCGAGCAGGCCGAAGCCGACAAGAAGCAAGCTGAGGACCGCTG  
CAAGCAGCTGGAGGAGGAGCAGCAGGCCCTCCAGAAGAAGCTGAAGGGGACAGAGGATGAGGTGAAAAAGTATTC  
TGAATCCGTGAAGGAGGCCAGGAGAAACTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGTGGC  
CTCCCTGAACCGCCGCATTTCAGCTGGTTGAGGAGGAGCTGGACCGGGCCAGGAGCGCCTGGCTACAGCCCTGCA  
GAAGCTGGAGGAGGCCGAGAAGGCGGCTGATGAGAGCGAGAGAGGAATGAAGGTCATCGAAAACCGGGCCATGAA  
GGATGAGGAGAAGATGGAAGTGCAGGAGATGCAGCTGAAGGAGGCCAAGCACATCGCTGAGGATTCAGACCGCAA  
ATATGAAGAGGTGGCCAGGAAGCTGGTGATCCTGGAAGGAGAGCTGGAGCGCTCGGAGGAGAGGGCTGAGGTGGC  
CGAGAGCCGAGCCAGACAGCTGGAGGAGGAAGTTCGAACCATGGACCAGGCCCTCAAGTCCCTGATGGCCTCAGA  
GGAGGAGTATTCCACCAAAGAAGATAAATATGAAGAGGAGATCAAAGTGTGGAGGAGAAGCTGAAGGAGGCTGA  
GACCCGAGCAGAGTTTGCCGAGAGGTCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTAGAAGAGACCTTGGC  
CAGTGCCAAGGAGGAGAACGTCGAGATTCACCAGACCTTGGACCAGACCCTGCTGGAAGTCAACAACCTGTGAGG  
GCCAGCCCCACCCCAGCCAGGCTATGGTTGCCACCCCAACCCAATAAACTGATGTTACTAGCCTCTC

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**FIGURE 418**

MDAIKKKMQLKLDKENAIDRAEQAEADKKQAEDRCKQLEEEQQALQKKLKGTEDEVEKYSESVKEAQEKLEQAE  
KKATDAEADVASLNRRIQLVEEELDRAQERLATALQKLEEAEKAADESERGMKVIENTRAMKDEEKMELQEMQLKE  
AKHIAEDSDRKYEEVARKLVILEGELERSEERA EVAESRARQLEEEELRTMDQALKSLMASEEEYSTKEDKYEEEI  
KLEEKLEAETRAEFAERSVAKLEKTIDDL EETLASAKEENVEIHQTL DQTLLELNNL

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**FIGURE 419**

AGTCTCCGGCGAGTTGTTGCCTGGGCTGGACGTGGTTTTGTCTGCTGCGCCCGCTCTTCGCGCTCTCGTTTCATT  
TTCTGCAGCGCGCCACGAGGATGGCCCAAGCAGATCTACTACTCGGACAAGTACTTCGACGAACACTACGAGT  
ACCGGCATGTTATGTTACCCAGAGAACTTTCCAAACAAGTACCTAAAACATCTGATGTCTGAAGAGGAGTGGA  
GGAGACTTGGTGTCCAACAGAGTCTAGGCTGGGTTCATTACATGATTCATGAGCCAGAACCACATATTCTTCTCT  
TTAGACGACCTCTTCCAAAAGATCAACAAAAATGAAGTTTATCTGGGGATCGTCAAATCTTTTTCAAATTTAATG  
TATATGTGTATATAAGGTAGTATTCACTGAATACTTGAGAAATGTACAAATCTTTCATCCATACCTGTGCATGAG  
CTGTATTCTTCACAGCAACAGAGCTCAGTTAAATGCAACTGCAAGTAGGTTACTGTAAGATGTTTAAGATAAAAG  
TTCTTCCAGTCAGTTTTTCTCTTAAGTGCCTGTTTGAGTTTACTGAAACAGTTTACTTTTGTTCAATAAAGTTTG  
TATGTTGCATTTAAAAAAAAAAAAAAAAA

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**FIGURE 420**

MAHKQIYYSDKYFDEHYEYRHVMLPRELSKQVPKTHLMSEEEWRR LGVQQSLGWVHYMIHEPEPHILLFRRPLPK  
DQQK

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**FIGURE 421**

GCCGCGGCTGCGGAACGGGCGGAGGCTGCCGGTTTCGTAACCGTCGCTCCTCCTCGCTGACTCGCGGGCTGTGAG  
GCCTGGGTTCGGCTCGGGCCGCACCGCGCGGGGCCGCTCGGAGTGGAGGCCGCTGGGGGCAGGCGGGCTAGAGGA  
GCAGGTACATGTGAAGATTTTTTGGCAGCTTAGCGTGGAACCATTTGATCACCTGCTCTCATTCTACCTGTTT  
TGTGTTGGCAAGGGAGAGTGGCCAAATGAGCAAGATATCGCAGCAAAACAGCACTCCAGGGGTGAACGGAATTAG  
TGTTATCCATACCCAGGCACATGCCAGCGGCTTACAGCAGGTTTCCTCAGCTGGTGCCTGCTGGCCCTGGGGGAGG  
AGGCAAAGCTGTGGCTCCCAGCAAGCAGAGCAAAAAGAGTTCGCCCATGGATCGAAACAGTGACGAGTATCGGCA  
ACGCCGAGAGAGGAACAACATGGCTGTGAAAAAGAGCCGGTTGAAAAGCAAGCAGAAAGCACAAGACACACTGCA  
GAGAGTCAATCAGCTCAAAGAAGAGAATGAACGGTTGGAAGCAAAAATCAAATTGCTGACCAAGGAATTAAGTGT  
ACTCAAAGATTTGTTTCTTGAGCATGCACACAACCTTGCAGACAACGTACAGTCCATTAGCACTGAAAATACGAC  
AGCAGATGGCGACAATGCAGGACAGTAGACCTCACCCTTTCCAGACTTTAGAGCTTGTGGCTTGAATGTTAAAGG  
TGTGACCACCGACACCACTCATGTCAATGGCTGAAAGTTGTCCATTTCCATGACTCAAAGACCCATTGGAGGCTA  
TTTTCTGGGATCAGCACTGAAGAGTTGATTAGCTAAAAATGTTAGCCTTGTAATTCGAATATCTGGTTTTAAATG  
ATAGAGGTTTTTGTGGGAATCAAATCCCCAAATGTTAAGGTATATGGTAAAAAAGAAATATCTGGGATCCCG  
ATGTTCTTAATAAATCCTGACTTCCC

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**FIGURE 422**

MSKISQQNSTPGVNGISVIHTQAHASGLQQVPQLVPAGPGGGGKAVAPSKQSKKSSPMDRNSDEYRQRRERNMA  
VKKSR LKSKQKAQDTLQRVNQLKEENERLEAKIKLLTKELSVLKDLFLEHAHN LADNVQSISTENTTADGDNAGQ

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**FIGURE 423**

CCGGCTCGGAGTGTGATCTAAGCAGGTGCGGTACCTTCCTCAGGTGACTCCGGCCACAGCCCCATTGTCCGCGGGC  
ACCGGCGGAGTTTAGCCGCAGACCTCGAAGCGCCCCGGGGTCCTTCCCGAACGGCAGCGGCTGCGGCGGGTCCAT  
GGAGAAGGGCCCTGTGCGGGCACCGGCGGAGAAGCCGCGGGGCGCCAGGTGCAGCAATGGGTTCCTCGAGCGGGA  
TCCGCGCGGGCCCCGGGCCAGCAGGCCGCGGAGAAGCCCCGCGGGCCGAGGCCAAGAGCGCGCAGCCCCGCGGA  
CGGCTGGAAGGGCGAGCGGCCCCGAGCGAGGAGGATAACGAGCTGAACCTCCCTAACCTGGCAGCCGCTACTC  
GTCCATCCTGAGCTCGCTGGGCGAGAACCCCCAGCGGCAAGGGCTGCTCAAGACGCCCTGGAGGGCGGCCCTCGGC  
CATGCAGTTCTTACCAAGGGCTACCAGGAGACCATCTCAGATGTCCTAAACGATGCTATATTTGATGAAGATCA  
TGATGAGATGGTGATTGTGAAGGACATAGACATGTTTTCCATGTGTGAGCATCACTTGGTTCCATTTGTTGGAAA  
GGTCCATATTGGTTATCTTCCTAACAAGCAAGTCCTTGGCCTCAGCAAACCTTGCGAGGATTGTAGAAATCTATAG  
TAGAAGACTACAAGTTTCAAGGAGCGCCTTACAAAACAAATTGCTGTAGCAATCACGGAAGCCTTGCGGCCTGCTGG  
AGTCGGGGTAGTGGTTGAAGCAACACACATGTGTATGGTAATGCGAGGTGTACAGAAAATGAACAGCAAACTGT  
GACCAGCACAAATGTTGGGTGTGTTCGGGAGGATCCAAAGACTCGGGAAGAGTTCCTGACTCTCATTAGGAGCTG  
AGCTTCATTTCAGTGTGTGTGCGTTGGTTGCCGATCGTACTGCCAGTAGCATTGTCTGTCTGTCCGGTCTTGTGTTG  
TACATTCCATTTTCAATTGTTACAGATGTGAACCTTTATTCCTTGTCTACTAATTATATTTAAAATTATTTCTAGGA  
AGTCAAATAAATATAATAAAGGGTTGAGCCTCTACTTTCTTCTTGCCACCTTTTTTGTGGCAATATTTAAAGTGAAC  
TGCTAATAGTGTAAAGTATGTGCACAAAACCACTGCCAGATAACCAGAGGGGCCTGGGAAGGGAGAAGAATTAGTG  
TATTTTTTTCAAATAGTACAGTAATTTGCCTCATAAGCATAGGAGCATTGGGAATGAGAGGGAAGTGTGCCCAGT  
ATACTGTTTTTTTTCTTCTCCAATAAAAGTGGTGTAGTGCCGAAAGTGCTAAAATATTTAGTGCGGTATTGCTC  
TGTGAATTCAAGTTCAACAGACTTCACCTTTGGTCATGTTTATTAAACCACCAGTGACATTTAAAAATATATTTTT  
AGCAGTCGTAATGTTAGTCACCAAGGGAAGGTGGTGGAATGTCTATGTTTTGATTTTACTGTGAGTTAAAAAGG  
CACATTTCTACCTTCTATTGTTTTTAAATTCAAGAATAGGGAATTAGTTCCTGGTGTTGTTTACGAGTGTATTCT  
CGTGTCACATACAGGATTTAGACATTTAACTCTCTGTGCCTTGATAAGAATATCATTTAGAGTGTAGATACTT  
TTGCCTTTTTAAAAAGCCATTATTTTATGAGACTTAGTACTCACACTGCAAATAACTAGTCAGCTCAGTTTTAA  
CTTTATAGGTTTATTGAGTTTCCTTTGTGTGATCCATGTAGATGCCTCAAAATGTTTCTTCTTCTTTTTTTTT  
AATCTTATAAGATATTTTTCTAAGTATTTCCAGAAACATTTGAGAGTGCCCATCATTTTCAGGTCTGCAGAACCA  
TAGCTTCCACGCACCTGAACGAGCACAGAATGAAGTACGGTGGAAGACATTATGAGCTGTGTCCAACGTTTTAA  
CCAAAGCGTATCGTACCAACGATCTGTGAAAATGCACTGGAAGCTTCTGGTCCCGGTTTTCTTTGTGGTCTATGT  
GGGTCTTGTCTCATTGTAACTCCGTATAGATGGTATAGGTATTTAATCCTGGAAGCTGTTGCCTTATTAATGA  
TTATCTTAAAAATTTCTCCTATTGGGGCAGCGTGGGCCAAATTAAAACAAACAAAACCGCAACTCCTCCACAGAAA  
CACAAACACAGTTATTCCATGAAGTTTAGTATTTGGTTGACATAGTGCTCTTCAAATTCATCCCATTACCCTAAA  
AGTAATAACTTTGATGCTTGCTTTAACTTTAGTCCCATCTCTGCCACTTTGATGCTATTTGGGTTATGATGGGGC  
AAGATGGCAGAGGTATTGGGTTTTTTTTGTTTTTTTCCATTCTCTACTTCTGTTTCCTAGCTTTTTCTTTCTG  
GAGTTTAAGTACAGTGATGGTTGGCTTGAGTACCTTTTTAAATCTAGCCAGTATAAACATTAGCCTGCTTAATA  
TTTAGACATTTATAGGTAGAATTCTGAGCACTCAACTCATGTTTGGCATTTTAAAGTAAAAACAAGTGTGACTTC  
GAGGACCAAGAAATTGTCAGCTATACATTTATCTTTATGAAGTCAATTTATATTCCTTTTTAATGACTCGTTGTT  
CTAACATTTCTTAGAAGTGTTCTTATAAAGGTCTAATGTATCCACAGGCTGTTGTCTTATTAGTAAATGCAAAGT  
AATGACTTTGTCTGTTTTACTCTAGTCTTTAGTACTTCAAATTTACCTTTTCATATCCATGATCTTGAGTCCATT  
TGGGGGATTTTTAAGAATTTGATGTATTTCAATACACTGTTCAAATTTAAATGTTTAAATTTTATGTATGAGTAT  
GTATGTTCTGTAAGTTGGTCCTATTTAAATTATTAACTATTGTAACTTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 424**

MEKGPVRAPAEKPRGARCSNGFPERDPPRPGPSRPAEKPPRPEAKSAQPADGWKGERPRSEEDNELNLPNLAAAY  
SSILSSLGENPQRQGLLKTWPRAASAMQFFTKGYQETISDVLNDAIFDEDHDEMVIKIDMFMSCEHHLVPFVG  
KVHIGYLPNKQVLGLSKLARIVEIYSRRLQVQERLTQIAVAITEALRPAGVGVVVEATHMCMVMRGVQKMNSKT  
VTSTMLGVFREDPKTREEFLLIRS



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**FIGURE 425**

CTGGGTCTGTCTCTGCCACCTGGTCTGCCACAGATCCATGATGTGCAGTTCTCTGGAGCAGGCGCTGGCTGTGCT  
GGTCACTACCTTCCACAAGTACTCCTGCCAAGAGGGCGACAAGTTCAAGCTGAGTAAGGGGGAAATGAAGGAACT  
TCTGCACAAGGAGCTGCCCAGCTTTGTGGGGGAGAAAGTGGATGAGGAGGGGGCTGAAGAAGCTGATGGGCAGCCT  
GGATGAGAACAGTGACCAGCAGGTGGACTTCCAGGAGTATGCTGTTTTCTGGCACTCATCACTGTCATGTGCAA  
TGACTTCTTCCAGGGCTGCCCAGACCGACCCTGAAGCAGAACTCTTGACTTCCTGCCATGGATCTCTTGGGCCCCA  
GGACTGTTGATGCCTTTGAGTTTTGTATTCAATAAACTTTTTTTGTCTGTTGA

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**FIGURE 426**

MCSSEALAVLVTTTFHKYSCQEGDKFKLSKGEMKELLHKELPSFVGEKVDEEGLKKLMGSLDENSQQVDFQEY  
AVFLALITVMCNDFQGCPRP

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**FIGURE 427A**

TCCTTTTATTGTGGATGAACACCACGTACATGCCGTAAATGCTCCCTAGGCTGGCTGCGGCTACAAGGCAGACCC  
GGGAGCTGAGAATAGAGGAATACCTGCCCAAGCAACTCATTCTGCACAGCAGCCGACAAGATAGCGATTTTCCTG  
TGCTGGAATGTGCCCATCCAAAGACACTTGGATTGGACTTAATCTTAAACCTCTGGAGTTCAAGACCTTTTAAAA  
AGGGCTAAATAAACAATCTCTACATGTAAAAGGCCACTGACTCCTACTTCTCTGTATAGAGCAACTGTTGAACT  
CAGCTGCCTGTAGGGCGTGATTCTCAGTCACCAGACTCAGCTTGGAGATCTTACAATGATGGCAATCAGGAGACA  
CTGAACGGAGATGCTACATATTCTCTCTTGACGAAAAGGTTTTAGAAGCGTTCGACCAAACCTACAAGATAAA  
AGATACCAACTCAGAGCCAGATAACAGTGAATGGAACTCAGGAGGTGCCGTGAGTCCCATGAGTTACTATCAG  
AGGCCGTTTTCCCCCTCGGCATATTCTCTCCAGCCTCACTCAACTCCAGCATTGTCTATGCAGCACGGCACATCC  
CTCGATTCCACAGACACATATCCCCAGCATGCGCAGTCTCTGGATGGCACCACCAGCAGCTCTATCCCCCTGTAC  
CGATCCTCAGAGGAAGAGAAGAGAGTGACAGTCATCAAAGCCCCGCATTACCCAGGGATCGGGCCCCGTGGATGAA  
TCCGGAATCCCCACAGCAATTAGAACGACAGTCGACCGGCCCAAGGACTGGTACAAGACGATGTTTAAAGCAAATT  
CACATGGTGCACAAGCCGGATGATGACACAGACATGTATAATACTCCTTATACATACAATGCAGGTCTGTACAAC  
CCACCCTACAGTGCTCAGTCACACCCTGTGCAAAGACCCAAACCTACAGACCTCTTTCCAAAAGCCACTCCGAC  
AACAGCCCCAATGCCTTTAAGGATGCGTCTCTCCAGTGCTCTCCCCACATGTTCCACCTCCAGTCCCGCCGCTT  
CGACCAAGAGATCGGTCTTCAACAGAAAAGCATGACTGGGATCCTCCAGACAGAAAAGTGGACACAAGAAAATTT  
CGGTCTGAGCCAAGGAGTATTTTTGAATATGAACCTGGCAAGTCATCAATTCTTCAGCATGAAAAGACCAGCCTCC  
TTGTATCAGTCCTCTATAGACAGAAGCCTGGAAAGACCCATGAGTTCTGCAAGCATGGCCAGTGACTTCAGGAAG  
CGGAGGAAGAGCGAGCCTGCAGTGGGTCCACCACGGGGCTTGGGAGATCAAAGTGCGAGCAGGACTAGCCCAGGC  
CGAGTGGACCTCCCAGGATCAAGCACCCTCTTACAAAGTCTTTCAGTCTCTTCTCCTTCTTCCCCATCAAGA  
GCAAAGGTGGGGATGATAGCAAAATATGTCCATCCCCTTTCAGTCTACTCAGGGCTCAACGGCAACCCCTCCAGT  
GAGTTAGATTACTGTAGCACTTACAGACAGCACTTGGATGTCCCTCGGGACTCACCAAGAGCCATTAGTTTCAAG  
AACGGCTGGCAAATGGCCCCGGCAAAACGCAGAAATCTGGAGCAGCAGGAAGAAACCGTCTCTCCCAAAATCAAA  
TCCCGGAGCTGTGACGATCTCCTAAACGACGACTGCGATAGCTTCCCGGACCCGAAAGTCAAGTCGAAAAGCATG  
GGCTCCCTGTTATGTGAGGAGGACTCCAAGGAGAGCTGCCCATGGCGTGGGGGTCCCCCTACGTCCCGGAGGTT  
CGCAGTAACGGCAGATCAAGGATCAGACACAGGTGAGCCCGCAACGCCCGGGGTTCTGAAGATGTACAAGAAA  
ATGCACCGCATCAACCGCAAGGACCTGATGAACTCCGAGGTGATCTGCTCCGTGAAGTCCAGGATTCTGCAGTAC  
GAGAGCGAGCAGCAGCACAAGGACCTGCTGCGCGCCTGGAGCCAGTGCTCCACGGAGGAGGTGCCCCGGGACATG  
GTGCCACACGCATCTCCGAATTCGAAAAGCTGATCCAGAAGTCCAAATCCATGCCAAATTTAGGGGATGACATG  
CTGTCTCCCGTAACCCCTAGAACCACCGCAAAATGGCCTATGTCCCAAGAGGCGGTTTTCCATTGAGTATTTGCTG  
GAGGAAGAAAATCAAAGCGGCCCCCGCTCGGGGGCCGGCGAGGTGCCAGTCTAACGCCCTGGTGCCCATTCAC  
ATTGAAGTCACCAGCGATGAGCAGCCCCGAGCACACGTGGAGTTTTCCGACAGCGACCAGGACGGGGTTGTGTCC  
GACCACAGTGACTACATTACCTAGAGGGGTCACTCTCTGCAGTGAAAGTGAAGTCTTGTACTTTTCTCTCACA  
TCCTCCGAAAGCTTTTACGGATCCAGCCACCACCACCACCATCACCACCACCACCACCACCGCCACCTCATCAGC  
TCCTGCAAAGGCAGGTGCCCGGCCTCTACACTCGATTTACCACAATGTAAAACACGAAAGAGCCAGACACGAA  
AACACCGAGGAGCCCAGAAGGCAAGAAATGGACCCTGGCCTTTCTAAACTTGCTTTTCTAGTCAGTCCTGTGCCT  
TTCCGGAGGAAAAAAATTCGGCTCCTAAGAAACAGACTGAAAAGGCAAAATGTAAAGCATCTGTGTTTGAGGCT  
CTGGACTCTGCCCTTAAAGACATCTGTGACCAAATTAAGCTGAAAAGAAAAGGGGGAGCTTGCCGGACAACAGC  
ATCCTGCACCGCCTCATCAGTGAGCTGCTGCCAGATGTTCCCGAGAGGAACTCATCCCTGAGAGCGCTGAGGAGG  
AGCCCCCTGCACCAGCCTCTCCACCCACTGCCTCCCGATGGTGCTATTCTTGTCCACCCTACCAGAATGACTGC  
GGAAGAATGCCCCGAGTGCTCTTTCCAAGACGTGGACACAGCCAACAGCAGCTGCCACCACCAAGACCGTGGC  
GGTGCACTCCAAGACCGTGAGTCCCCTAGAAGTTACTCATCCACTTTGACTGACATGGGGAGAAGTGACCAAGG  
GAAAGAAGAGGAAGTCCAGAAAAGAGAAATTGCCTGCAAAGCTGTTTATGATTTTAAAGGCTCAGACATCTAAG  
GAGTTGTCAATTTAAGAAAGGAGATACTGTCTACATCCTCAGGAAAATTGATCAAAATTTGGTATGAGGGAGAACAC  
CACGGGAGAGTGGGCATCTTCCCGATCTCATACTAGAGAACTCACACCTCCTGAGAAAGCACAGCCTGCAAGA  
CCACCTCCGCCAGCCCAGCCGGAGAAATCGGAGAAGCTATAGCCAAATACAACCTTCAACGCAGACACAAATGTG  
GAGCTGTCACTGAGAAAGGGAGATAGAGTTATTCTTCTTAAAGAGTTGATCAAAACTGGTATGAAGGTAAAATC  
CCAGGAACCAACAGACAAGGCATCTTCCCTGTTTCTATGTGGAGGTGCTCAAGAAGAACACAAAAGGTGCTGAG  
GACTACCCTGACCCTCCAATACCCACAGCTATTCTAGTGATAGGATTACAGCTTGAGCTCAAATAAGCCACAG

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**FIGURE 427B**

CGTCCTGTGTTTACTCATGAAAATATTCAAGGTGGGGGGGAACCGTTTCAGGCTCTGTATAACTATACTCCCAGG  
AATGAAGATGAGCTGGAGCTCAGAGAAAGTGATGTCATTGATGTCATGGAAAAGTGTGATGACGGCTGGTTTGTG  
GGGACCTCAAGAAGAACCAAATTCTTTGGTACTTTCCCCGGAAACTACGTCAAGAGGCTGTGAATTGCGCTCCCT  
CCTTCTGTAGAGGCCGCTGCCAGCCATGCACCTGCGTCAACGCGCCTGAAACACCCCGCGGGCCTCCCGTTGTC  
ATGCCTTACGGTTTCCAATGCGCCGTCACCATCTCCACCTCCCACCAAACCACCAGCAGAGTAGCCGCCGCTGCT  
GTGAGCCTGGGGACGACATGGCAGGCTGGTCCCCCTCCGTGAAAGTGTGGATTCTACTTCCTGCTCTAAGCTTT  
GACACGTCAAATGTGGGATCAGAAAGAAAAAATCATGATATTTAAAAATGGTCAAATATTTG

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**FIGURE 428**

MSYYQRPFSPSAYSLPASLNSSIVMQHGTSLDSTDITYPQHAQSLDGTSSSIPLYRSSEEEKRVTVIKAPHYPGI  
GPVDESGIPTAIRTTVDRPKDWYKTMFKQIHMVHKPDDDDTDMYNTPYTYNAGLYNPPYSAQSHPAAKTQTYRPLS  
KSHSDNSPNAFKDASSPVPPPHVPPPVPLRPRDRSSTEKHDWDPPDRKVDTRKFRSEPRISIFEYEPGKSSILQH  
ERPASLYQSSIDRSLERPMSASMASDFRKRKSEPAVGPPRGLGDQSASRTSPGRVDLPGSSTTLTKSFTSSSP  
SSPSRAKGGDDSKICPSLCSYSGLNGNPSSSELDYCSTYRQHLDVPRDSPRAISFKNGWQMARQNAEIWSSTEETV  
SPKIKSRSCDLLNDDCDSFPDPKVKSESMGSLCEEDSKESCPMAWGSPYVPEVRSNGRSRIRHRSARNAPGFL  
KMYKKMHRINRKDLMNSEVICSVKSRILOYESEQQHKDLLRAWSQCSTEEVPRDMVPTRISEFEKLIQSKSMPN  
LGDDMLSPVTLEPPQNGLCPKRRFSIEYLLEENQSGPPARGRRGCQSNALVPIHIEVTSDEQPAHVEFSDSDQ  
DGVVSDHSDYIHLEGSSFCSESDFDHFSFTSSSEFYGSSHHHHHHHHHHHRLISSCKGRCPASYTRFTTMLKHE  
RARHENTEEP RRQEMDPGLSKLAFLVSPVPFRRKKNSAPKKQTEKAKCKASVFEALDSALKDIDQIKAEEKRGS  
LPDNSILHRLISELLPDVPERNSSLRALRRSPLHQPLHPLPPDGAIHCPYQND CGRMPSASFQD VDTANSSCH  
HQDRGGALQDRES PRSYSSTLTDMGRSAPRERRGTPEKEKLPKAVYDFKAQTSKELSFKKGD TVYILRKIDQNW  
YEGEHHRVGIFPISYVEKLTPEKAQPARPPPPAQPGEIGEAIKYNFNADTNVELSLRKGDRVILLKRVDQNW  
YEGKIPGTNRQGIFPVSYVEVVKKNTKAEDYPDPPIPHSYSSDRIHSLSSNKPQRPVFTHENIQGGGEFQALY  
NYTPRNEDELELRES DVIDVMEKCDDGWFGVTSRRTKFFGTFPGNYVKRL

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**FIGURE 429**

CCTGGAGTTACAATGGCGGCGCCCATGCTGCGCTGGGGCTGCCGTGGAAGACGTTGGGCTTTCGCCCGGGTTGAC  
GGTGGTTCTTGCCACCGAAGAGGGGCTCCGACTGGGTCCACATCCAACCAGATTAGGGGAGAGAGCTCAGTGGCT  
CAGCAGCCCCCTCCACACGGGCCAGAAAGACGAGGAAAGGTGAACACAAATGGGCTGCTGTGGTAGGTTTGAAATT  
CATGCCCAGATTTCTCCAACCTCTAAACTCTTCTCTGGATCTCAAGTTCGCTTTTCAGCACCTCCAAATTCTTTG  
GTTTCTTTTTTTGATGCATCTCTACCTGGAACCTTTGCCGGTTCTCAACAGGAGGTGTGTAGAAGCGCGGTGATG  
ACAGGCCTGGCTCTGAACTGCCACATAAACAAGAAGTCCTTGTTTGACAGGAAGCACTACTTCTATGCAGACCTC  
CCTGCAGGCTACCAAATTACCCAGCAGAGGCTCCCAATTGCTGTGAATGGGAGCTTGATATATGGCGTCTGTGCA  
GGGAAGAAGCAGAGTCAGGTGATCCCCAAGACGGTGAGGATCAAGCAGATCCAGTTGGAGCAAGACAGTGGCAAA  
AGCCTCCACGACAACCTGAGGTCTCAGACGCTCATTGATTTGAACAGGGCAGGAGTGGGCCTTCTGGAGGTGGTC  
CTGGAGCCCCGACATGTCTGTGGAGAAGAGGCGGCAACAGCTGTCTAGGGAGCTGCAGCTGATCCTTCAAGCCCTG  
GGGACCAGCCAGGCGAACATGGCAGAGGGCCAGTTGAGAGTGGATGCCAATATATCCGTGCATCACCTGGGGAG  
CCTTTGGGCGTTTGAACGGAAGTGAAGAATCTCAACAGCATCAGGTTCTTGCCCAAAGCCATAGACTATGAAATT  
CAGAGGCAAATCAATGAACTTGAGAAATGGAGGTGAAATTCTGAACGAAACACGCTCATTTCATCACAAAGCTGGGG  
TGCACCATGTCAATGAGAGACAAAGAAGGAAAACAGGACTACAGGTTTCATGCCAGAACCCAACTGCCTCCCCTG  
GTGCTCTACGACGCCACATCTCTGCCCCGAGGTGCAGACCCACAGCAAGTGATCAATATTGACCAGATTTCGGGAG  
ACACTCCCGGAGCTCCCCAGTGTGACCCGAGAGAAGCTTGTTCAACAGTATGGGATGCTGCTGGAACACAGCTTC  
ACTTTGCTGAACGAAGTCGGCCTACTGGAGTTCTTCCAAAATGTGATAAAAGAACTAGGGCAGAGCCAAAAAAG  
GTGACTAGTTGGGTCCTCAACACTTTTCTGGGCTATTTAAAGCAACAGAACCTCGCTGTCTAGTGAGAGTCCTGTC  
ACACCCTCTGCACTCGCTGAGCTTCTTGACCTGCTGGACAGCAGAACAATTTCTTCATCAGCAGCTAAACAGGTG  
TTTGAGGAACTGTGGAAGAGGGAAGGCAAGACTCCAGGGCAGATTGTTTCAGAAAAGCAGCTTGAACTGATGCAG  
GACCAGGGGGCACTGGAGCAGCTCTGCCACTCTGTGATGGAGGCCCATCCTCAAGTGGTAATGGATGTGAAGAAC  
AGAAACCCAGAGCTATAAATAAACTGATTGGGTTGGTCCGGAAGCGACTCAAAGCCGAGCAGATCCAGTCATG  
ATAAAGGAGATCCTGGAGAAGAAGCTGTCAATGTGAGATGTTTGGGATCCCCCTTGCCCAAGGGACAACAACAAC  
AGTGCAGCCTGACTGGGAACAGGATCCTGTGAAAGCTGATGCCATGTGCCCTGAGAGCTGCCTCTCAATCCCTG  
TCCAAGCCACAGCTATGGCGTTAATGTACCAAGTGTTCTCACCTCTAGGCCCTGTGCCTGGAGGTGCCTCCAC  
AGCCGACCAGCAGCCACCCGCTGCTTCATCCACATCAGGAGGGTCCGGTGAGGCTGCAGCAGTGTTAAGGAG  
TAACACCTTCTGTATTAAGGAATTTTAAACTAAATAAAATGTATGTTGGAGATACTGTATAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 430**

MAAPMLRWGCRGRRWAFARVDGGSCHRRGAPTGSTSNQIRGESSVAQQPLHTAQKTRKGEHKWAAVVGLEIHAQI  
SSNSKLFSGSQVRFSAPPNSLVSFFDASLPGTLPVLNRRCVEAAVMTGLALNCHINKKSLFDRKHYFYADLPAGY  
QITQORLPPIAVNGSLIYGVCAGKKQSQVIPKTVRIKQIQLEQDSGKSLHDNLRSQLIDLNRAGVGLLEVLEPD  
MSCGEEAATAVRELQLILQALGTSQANMAEGQLRVDANISVHHPGEPLGVRTEVKNLNSIRFLAKAIDYEIQRQI  
NELENGGEILNETRSFHHKLGCTMSMRDKEGKQDYRFMPEPNLPPLVLYDATSLPAGADPQQVINIDQIRETLPE  
LPSVTREKLVQQYGMLLEHSFTLLNEVGLEFFQNVIKETRAEPKKVTSWVLNTFLGYLKQQNLAVSESPVTPSA  
LAELDLLDSRTISSSAKQVFEELWKREGKTPGQIVSEKQLELMQDQGALEQLCHSVMEAHQPQVMDVKNRNPR  
AINKLIGLVRKATQSRADPVMIKEILEKKLSL

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**FIGURE 431**

GCTGTCTGAGCCTGAGTACTCTAGCTGCCTTGTCGCCATCGCATCTGGCTGCCATCCAGCGCCAGCACACAGTA  
ATGAGTGGCCGAGCTTCCTCTGGGAGGGAGGAAACAGTTAAAATCTTGAGCAGCTGCAATCATCTAGGCGTGGT  
TCTCTTGCTGACTTGGGCTGCACAGATCCTGGGCCAAGGGACAGAAGAAAGACAGCCTAGGAGCAGAGCCTCCC  
AGATGGCTGAGTTGGATCTAATGGCTCCAGGGCCACTGCCAGGGCCACTGCTCAGCCCCAGCCCCCTCTCAGCC  
CAGACTCTGGGTACCCAGCCAGATTCTGGGTACGCCAGCCAGTGGGAAGAAGAGGACGTGGGCTCCTCGGAGA  
AGCTTGGCAGGGAGACGGAGGAACAGGACAGCGACTCTGCAGAGCAGGGGGATCCTGCTGGTGAGGGGAAAGAGG  
TCCTGTGTGACTTCTGCCTTGATGACACCAGAAGAGTGAAGGCAGTGAAGTCCTGTCTAACCTGCATGGTGAATT  
ACTGTGAAGAGCACTTGACGCCGCATCAGGTGAACATCAAAGTCAAAGCCACCTGCTGACCGAGCCAGTGAAGG  
ACCACAACCTGGCGATACTGCCCTGCCACACAGCCACTGTCTGCTTTCTGCTGCCCTGATCAGCAGTGCATCT  
GCCAGGACTGTTGCCAGGAGCACAGTGGCCACACCATAGTCTCCCTGGATGCAGCCCGCAGGGACAAGGAGGCTG  
AACTCCAGTGCACCCAGTTAGACTTGGAGCGGAACTCAAGTTGAATGAAAATGCCATCTCCAGGCTCCAGGCTA  
ACCAAAAGTCTGTTCTGGTGTCTGGTGTGACAGGTCAAAGCGGTGGCTGAAATGCAGTTTGGGGAACTCCTTGCTG  
CTGTGAGGAAGGCCCAGGCCAATGTGATGCTCTTCTTAGAGGAGAAGGAGCAAGCTGCGCTGAGCCAGGCCAACG  
GTATCAAGGCCCACCTGGAGTACAGGAGTGCCGAGATGGAGAAGAGCAAGCAGGAGCTGGAGAGGATGGCGGCCA  
TCAGCAACACTGTCCAGTTCTTGGAGGAGTACTGCAAGTTTAAGAACACTGAAGACATCACCTTCCCTAGTGTTT  
ACGTAGGGCTGAAGGATAAACTCTCGGGCATCCGCAAAGTTATCACGGAATCCACTGTACACTTAATCCAGTTGC  
TGGAGAACTATAAGAAAAAGCTCCAGGAGTTTCCAAGGAAGAGGAGTATGACATCAGAACTCAAGTGTCTGCG  
TTGTTACAGCGCAAATATTGGACTTCCAAACCTGAGCCCAGCACCAGGGAACAGTTCCCTCCAATATGCGTATGACA  
TCACGTTTGACCCGGACACAGCACACAAGTATCTCCGGCTGCAGGAGGAGAACCGCAAGGTCACCAACACCACGC  
CCTGGGAGCATCCCTACCCGGACCTCCCCAGCAGGTTCTGCACTGGCGGCAGGTGCTGTCCCAGCAGAGTCTGT  
ACCTGCACAGGTACTATTTTGGAGGTGGAGATCTTCGGGGCAGGCACCTATGTTGGCCTGACCTGCAAAGGCATCG  
ACCGGAAAGGGGAGGAGCGCAACAGTTGCATTTCCGGAACAACTTCTCCTGGAGCCTCCAATGGAACGGGAAGG  
AGTTCACGGCCTGGTACAGTGACATGGAGACCCCACTCAAAGCTGGCCCTTTCGGGAGGCTCGGGGTCTATATCG  
ACTTCCCGGGAGGGATCCTTTCTTCTATGGCGTAGAGTATGATACCATGACTCTGGTTTACAAGTTTGCCTGCA  
AATTTTCAGAACCAGTCTATGCTGCCTTCTGGCTTTCCAAGAAGGAAAACGCCATCCGGATTGTAGATCTGGGAG  
AGGAACCCGAGAAGCCAGCACCGTCTTGGGGGTGACTGCTCCCTAGACTCCAGGAGCCATATCCCAGACCTTTG  
CCAGCTACAGTGATGGGATTTGCATTTTAGGGTGATTTGTGGGCAGAAATAACTGCTGATGGTAGCTGGCTTTTG  
AAATCCTATGGGGTCTCTGAATGAAAACATTCTCCAGCTGCTCTCTTTTGCTCCATATGGTGCTGTTCTCTATGT  
GTTTGAGTAATTTCTTTTTTTTTTTTTTGGAGACGGAGTCTCGCACTGTTGCCAGGCTGGAGAGCAGTGGCGCGA  
TCTTGGCTCACTGCAAGCTCCGCCTCCCGAGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTA  
CAGGTGCCCTGCCACCACACCAGCTAATGTTTTGTATTTTAGTAGAGATGGGGTTTACCATGTTGGCCAGGCA  
GATCTCAAACCTCTGACCTCGTGATGCACCCACCTCGGCCTCCCAAAGTGCTGGGATTACATGCGTGAGCCACTG  
CGCCCTGCCTGTTTGTAGTAATTTTGGACCAAATCTCCCTCATCTTCTAGTGCCATTCTCCTCTCTGTTTCA  
GTAAAAGTCACTGTGCCAGAAATGGATGACAGGAACCTTAAAGAGTGGCTGAAAAGATTGCAGAGTTATCAT  
AATAAATTGCTAACTTGCCT



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**FIGURE 432**

MAELDLMAPGPLPRATAQPPAPLSPDSGSPSPDSGSASPVEEEDVGSSEKLGRETEEQDSDSAEQGDPAGEGKEV  
LCDFCLDDTRRVKAVKSCITCMVNYCEEHLQPHQVNIKLQSHLLTEPVKDHNRWRYCPAHHSPLSAFCCPDQQCIC  
QDCCQEHSGHTIVSLDAARRDKEAELQCTQLDLERKLKLNENAI SRLQANQKSVLVSVEVKAVAEMQFGELLAA  
VRKAQANVMLFLEEKEQAALSQANGIKAHLEYRSAEMEKSQELERMAAISNTVQFLEEYCKFKNTEDITFPSVY  
VGLKDKLSGIRKVI TESTVHLIQLL ENYKKKLQEF SKEEYDIRTQVSAVVQRKYWTSKPEPSTREQFLQYAYDI  
TFDPDTAHKYLRLQEENRKVTNTTPWEHPYPDLPSRFLHWRQVLSQQSLYLHRYFFEVEIFGAGTYVGLTCKGID  
RKGEERNSCISGNFWSLQWNGKEFTAWYSDMETPLKAGPFRR LGVYIDFP GGILSFYGVEYDTMTLVHKFACK  
FSEPVYAAFWSKKENAIRIVDLGEEPEKPAPSLGVTAP

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**FIGURE 433**

GGTGGGTCTGAATCTAGCACCAATGACGGAAGTAGAGACAGCCATGGGCATGATCATAGACGTCTTTTCCCGATAT  
TCGGGCAGCGAGGGCAGCACGCAGACCCTGACCAAGGGGGAGCTCAAGGTGCTGATGGAGAAGGAGCTACCAGGC  
TTCCTGCAGAGTGGAAGACAAGGATGCCGTGGATAAATTGCTCAAGGACCTGGACGCCAATGGAGATGCCAG  
GTGGACTTCAGTGAGTTCATCGTGTTCTGGCTGCAATCACGTCTGCCTGTCACAAGTACTTTGAGAAGGCAGGA  
CTCAAATGATGCCCTGGAGATGTCACAGATTCTGCAGAGCCATGGTCCCAGGCTTCCCAAAAGTGTGTTGGC  
AATTATCCCCTAGGCTGAGCCTGCTCATGTACCTCTGATTAATAAATGCTTATGAAAAAAAAA

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**FIGURE 434**

MTELETAMGMIIDVFSRYSGSEGSTQTLTKGELKVLMEKELPGFLQSGKDKDAVDKLLKDLDANGDAQVDFSEFI  
VFVAAITSACHKYFEKAGLK

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**FIGURE 435**

AAGACTGCGAGCTCCCCGCACCCCTCGCACTCCCTCTGGCCGGCCAGGGCGCCTTCAGCCCAACCTCCCCAGC  
CCCACGGGCGCCACGGAACCCGCTCGATCTCGCCGCCAACTGGTAGACATGGAGACCCCTGCCTGGCCCCGGGTC  
CCGCGCCCCGAGACCGCCGTCGCTCGGACGCTCCTGCTCGGCTGGGTCTTCGCCCAGGTGGCCGGCGCTTCAGGC  
ACTACAAATACTGTGGCAGCATATAATTTAACTTGAAATCAACTAATTTCAAGACAATTTTGGAGTGGGAACCC  
AAACCCGTCAATCAAGTCTACACTGTTCAAATAAGCACTAAGTCAGGAGATTGGAAAAGCAAATGCTTTTACACA  
ACAGACACAGAGTGTGACCTCACCGACGAGATTGTGAAGGATGTGAAGCAGACGTACTTGGCACGGGTCTTCTCC  
TACCCGGCAGGGAATGTGGAGAGCACCGGTTCTGCTGGGGAGCCTCTGTATGAGAACTCCCCAGAGTTCACACCT  
TACCTGGAGACAAACCTCGGACAGCCAACAATTCAGAGTTTTGAACAGGTGGGAACAAAAGTGAATGTGACCGTA  
GAAGATGAACGGACTTTAGTCAGAAGGAACAACACTTTCCTAAGCCTCCGGGATGTTTTTGGCAAGGACTTAATT  
TATACACTTTATTATTGGAAATCTTCAAGTTCAGGAAAGAAAACAGCCAAAACAAACACTAATGAGTTTTTGTATT  
GATGTGGATAAAGGAGAAAACCTACTGTTTTAGTGTTCAGCAGTGATTCCCTCCCGAACAGTTAACCAGGAAGAGT  
ACAGACAGCCCGGTAGAGTGTATGGGCCAGGAGAAAGGGGAATTCAGAGAAATATTCTACATCATTGGAGCTGTG  
GTATTTGTGGTCATCATCCTTGTATCATCCTGGCTATATCTCTACACAAGTGTAGAAAGGCAGGAGTGGGGCAG  
AGCTGGAAGGAGAACTCCCCACTGAATGTTTTCATAAAGGAAGCACTGTTGGAGCTACTGCAAATGCTATATTGCA  
CTGTGACCGAGAACTTTTAAGAGGATAGAATACATGGAAACGCAAATGAGTATTTCCGGAGCATGAAGACCCTGGA  
GTTCAAAAAAATCTTGATATGACCTGTTATTACCATTAGCATTCTGGTTTTGACATCAGCATTAGTCACTTTGAA  
ATGTAACGAATGGTACTACAACCAATTCGAAGTTTTAATTTTTTAACACCAATGGCACCTTTTGCACATAACATGCT  
TTAGATTATATATTCCGCACTTAAGGATTAACCAGGTCGTCCAAGCAAAAAACAAATGGGAAAATGTCTTAAAAAA  
TCCTGGGTGGACTTTTGAAAAGCTTTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTTGCTCTGTTGCCCAGGCTGG  
AGTGCACTAGCACGATCTCGGCTCAGTTCACCCCTCCGTCTCTCGGGTTCAAGCAATTGCTCTGCCTCAGCCTCCC  
GAGTAGCTGGGATTACAGGTGCGCACTACCACGCCAAGCTAATTTTTTGTATTTTTTAGTAGAGATGGGGTTTTAC  
CATCTTGGCCAGGCTGGTCTTGAATTCCTGACCTCAGTGATCCACCCACCTTGGCCTCCCAAAGATGCTAGTATT  
ATGGGCGTGAACCACCATGCCAGCCGAAAAGCTTTTTGAGGGGCTGACTTCAATCCATGTAGGAAAGTAAATGG  
AAGGAAATTTGGGTGCATTTCTAGGACTTTTCTAACATATGCTATATAATATAGTGTTTAGGTTCTTTTTTTTTTCA  
GGAATACATTTGGAAATTCAAAACAATTGGGCAAACTTTGTATTAATGTGTTAAGTGCAGGAGACATTGGTATTC  
TGGGCAGCTTCCTAATATGCTTTACAATCTGCACTTTAACTGACTTAAGTGGCATTAAACATTTGAGAGCTAACT  
ATATTTTTTATAAGACTACTATACAACTACAGAGTTTATGATTTAAGGTACTTAAAGCTTCTATGGTTGACATTG  
TATATATAATTTTTTAAAAAGGTTTTTCTATATGGGGATTTTCTATTTATGTAGGTAATATTGTTCTATTTGTAT  
ATATTGAGATAATTTATTTAATATACTTTAAATAAAGGTGACTGGGAATTGTT

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**FIGURE 436**

METPAWPRVPRPETAVARTLLLGWVFAQVAGASGTTNTVAAYNLTKSTNFKTILEWEPKPVNQVYTVQISTKSG  
DWKSKCFYTTDTECDLTDEIVKDVKQTYLARVFSYPAGNVESTGSAGEPLYENSPEFTPYLETNLGQPTIQSFEQ  
VGTKVNVTVEDERTLVRRNNTFLSLRDVFGKDLIYTLYYWKSSSSGKKTAKTNTNEFLIDVDKGENYCFSVQAVI  
PSRTVNRKSTDSPVECMGQEKGEFREIFYIIGAVVFVVIILVILAILSLHKCRKAGVGQSWKENSPLNVS

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**FIGURE 437A**

TAGCAGGTTGCTACTGCCCCGAACCCGCGCTGCAGGGAACAGCGGGGCAAACAGTGAGTGGGGTTTCAGCGTAGAC  
TCTGGACCAGGAGAGGCCCGCGGTGACCGAGGCCTGGGCCCCGAAACCAATAGAGCCATGGCGACTCCCTCTGC  
TGCCCTTCGAGGCCCTTATGAATGGTGTGACAAGCTGGGATGTACCCGAAGATGCTGTTCCATGTGAAGTCTTCT  
TATTGGAGAGGCTTCATTTCCCTGTGATGGTGAATGACATGGGCCAGGTCCTCATTGCTGCCTCCTCCTATGGCCG  
TGGCCGCTGGTGGTTCGTGTCCCATGAGGACTACTTGGTGAAGCCCAGCTCACGCCCTTTCTCCTGAACGCAGT  
GGGGTGGCTTTGCTCTTCCCTGGGGCTCCCATTTGGTGTACACCCATCCCTGGCACCTTTGGCCAAAATCCTCGA  
GGGCTCTGGAGTGGATGCAAAGGTTGAGCCAGAAGTGAAAGACTCCCTGGGGGTTTACTGTATTGATGCCTACAA  
TGAAACCATGACAGAAAAGCTGGTCAAGTTCATGAAATGTGGTGGCGGCTTGCTCATAGGAGGACAAGCCTGGGA  
TTGGGCCAACCAGGGGGAGGATGAAAGGTTCTGTTTACGTTCCCTGGGAACCTCGTGACCAGTGTGGCTGGCAT  
TTACTTTACTGACAACAAAGGGGACACGAGTTTCTTTAAAGTCTCCAAGAAGATGCCCAAGATCCCAGTGTGGT  
TAGTTGTGAAGATGACCTCTCCGACGACAGAGAAGAGCTTCTGCATGGGATTTTACAGAGCTGGACATCAGCAACTC  
GGATTGTTTCCCATCCCAGCTGCTAGTGCATGGGGCTTTAGCCCTTTCTCTAGGGTTAGATTCCCTACCATGGCTG  
TGTTATAGCGGTGCCCCGCTATGGCCGGGGCCGGGTGGTTGTGACTGGCCATAAGGTATTATTCACTGTTGGTAA  
ACTGGGCCCCCTTTCTGCTCAATGCTGTCCGCTGGCTGGATGGGGGGCCGAGAGGCAAGATTGTGGTGCAGACAGA  
GCTGAGAACCTTGAGTGGCCCTCTCGCAGTGGGGGGCATAGACACAGCATCGAGCCCAATCTGACCAGTGATGC  
AAGTGTCTACTGCTTTGAACCCGTGAGTGAAGTGGGGGTCAAGGAACCTGCAGGAGTTTGTAGCAGAGGGTGGCGG  
GCTATTTGTTGGAGCCCAAGCCTGGTGGTGGGCCCTTCAAGAACCCCGGAGTGTCCCCTTTGGCTCGATTCCCAGG  
AAACCTCCTCCTCAACCCCTTTGGCATCAGCATTACAAGCCAAAGCCTCAATCCAGGGCCCTTTCTGACTCTCTAA  
AGCAGGGATAAGGACCTATCACTTCCGCTCCACCTTGGCCGAGTTCAGGTTATAATGGGCAGGAAGAGAGGAAA  
TGTGGAAAAGGGCTGGTTGGCAAAGCTGGGACCAGATGGTGCAGCTTTCCTGCAGATTCCCGCAGAAGAGATCCC  
TGCTACATGTCTGTGCATCGACTCCTGAGGAAGCTGCTAAGTCGATATCGGCTTCCAGTAGCAACCCGAGAGAA  
CCCTGTTATCAATGACTGCTGCAGAGGTGCTATGCTTTCCCTGGCCACAGGGCTGGCCACTCTGGAAGCGACCT  
CTCTCTGTTAGTCCCAGAAATTGAAGATATGTACAGCAGCCCTATCTGCGCCCTCAGAATCTCCTATCACCGT  
CGAGGTCAACTGCACCAATCCAGGCACCAGATATTGCTGGATGAGTACTGGGCTCTACATACCTGGAAGGCAAT  
TATAGAAGTCTCACTGCCTGAAGCTGCTGCCTCTGCCGACCTGAAGATACAGATTGGCTGCCACACAGATGACCT  
GACCAGGGCCAGCAAGCTTTTCCGAGGCCCACTCGTAATTAACCGGTGCTGCTTGGACAAACCCACAAAATCGAT  
CACGTGCCTCTGGGGTGGACTCCTCTATATAATTGTGCCTCAGAACAGCAAACTGGGTTCTGTGCCTGTCACCGT  
GAAGGGGGCTGTGCATGCTCCATACTACAAGCTGGGGGAGACCACCTGGAGGAGTGGAAGAGGCGTATCCAGGA  
GAATCCAGGGCCCTGGGGAGAGCTGGCCACGGACAACATCATTCTGACCGTGCCGACCGCAAATCTTCGTACTCT  
GGAGAACCCTGAGCCGCTGCTCCGCCTCTGGGATGAGGTGATGCAGGCTGTGGCGGACTGGGAGCTGAGCCCTT  
CCCTTTGCGCCTGCCTCAGAGGATTGTTGCCGACGTGCAGATCTCAGTGGGCTGGATGCATGCAGGGTACCCCAT  
CATGTGCCATCTGGAGTCAGTGCAGGAGCTCATCAACGAGAAGCTCATCAGAACCAAGGGGCTGTGGGGCCCCGT  
CCATGAGCTGGGCCGCAACCAGCAGCGCAGGAGTGGGAGTTCCCACCACACACCACCGAGGCCACCTGCAACCT  
GTGGTGTGTGTATGTGCATGAGACGGTCTTGGGCATTCTCGAAGCCGTGCCAATATTGCTCTGTGGCCCCCAGT  
TCGGGAGAAGAGAGTCAGAATCTACCTGAGCAAGGGTCCCAATGTGAAAAACTGGAATGCATGGACCGCACTGGA  
AACGTATTTACAGCTCCAGGAAGCCTTTGGTTGGGAGCCATTTCATCCGTCTCTTCACCGAGTACAGGAACCAGAC  
CAACTTGCCACAGAAAATGTTGACAAAATGAATCTGTGGGTCAAGATGTTCTCCACCAAGTGCAGAAGAACCT  
GGCTCCGTTCTTTGAGGCCTGGGCCTGGCCCATCCAGAAGGAAGTGGCTACCAGCCTGGCCTATCTGCCTGAATG  
GAAGGAAAATATTATGAAATTGTACCTCCTCACACAGATGCCCCACTGAAATTGAAGTCAAGAAATGCAAAAAGG  
AACTGACACATCTCAGCAAAAGAAAAGTGAAGGGATTTGGTTATAAGTTGGAGAGGATCTCAGCATATTTCTGGAAG  
ATAGAAAGTGGATGAAGCATGATAATGAAAGAGTGAAGAACCTTTTCAGATAAAATGTAAGCTGATCTGAACAACA  
TAACCCCAAAGAGACTTGCGCACCTGAAAAGCTTGTCTACTGAAGAATTACTCCAGTTGTAAGATTGAGCCCTCT  
CCTACTCTCCCCAACTCTTATGCACAGAACACAGGCAGTCTCCACTATTGATACAGTTAAAAATTTCTTGTTA  
TTGTTGCTGTTGTTGTTTGTATAAAGGAATTGAACAGGCTGCTTGAGAGAGATAAGAGTTGGTGCTCCAGAAAA  
AAATTTCTCTTCTAGTGGAAATAAGTGCCCTACCCCCAGCCGGTCAGCTAATTCTCTACTGACAGCTGAGACCT  
CCTACTCAAGTGCTGTTGCCTTCAGGTATAGAAGAGGTTTCTGAAGAAACAGACCTAACTGTACAACAGCAGA  
GGAAACCCATGCCAACTGTTATACAAGTTAACAGTTATGTTGATTCTTAAATGGGAATGGTGAGTTAGAAATTCC  
CAGACATGGGCGATGGGGAGGGAAGAGGAATAAGAAAAGTTACGAGGTAGAATTAGGGGCCCTTGAAAATATGACA

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**FIGURE 437B**

AACTCTGAGGGAAACAAAGACAATGTGGAAAGAATAACTTAATTTTAATTCCATCTCCAGAGAGATTTGAGGTGT  
ATTTAAGATGAAAAACAGGATACTACAAAGAAACGGAAACTCAGGAGTTCAAGACCAGCCTAGGCAAGATGGCA  
ACATCCCGTCTCTACAAAATAATTTTAAAAATTAGCCAAGCATGGTGGCATGTGCCTGTGGTCTAGCTACTTG  
GGAGGCTGAAGTGGGAAGATCACTTGAGCCCAGGAGTTCAAGGCTTCAGTGAGCCATGATGGTGCCACTGCACTC  
CAGCCTGGGGGACAGAGTGAGACCCTGTCTCTTAAAAAGCAAGAAAAGAAAGAGAAGACTGAGAATAAGAAGATC  
TCTTTGAAAATAAAATAAGACTGCTAAAAGTATTTGGTATACAGTCTGGAAAATAAAGTTGAGGGAATCTCTCCA  
GATAAAGAGCAAAAAGAAATAGATAG

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**FIGURE 438**

MATPSAAFEALMNGVTSWDVPEDAVPCELLLIGEASFPVMVNDMGQVLIAASSYGRGRLVVSHEDYLVEAQLTP  
FLLNAVGWLCSSPGAPIGVHPSLAPLAKILEGSGVDAKVEPEVKDSLGVYCIDAYNETMTEKLVKFMKCGGGLLI  
GGQAWDQANQGEDERVLFTHPGNLVTSVAGIYFTDNKGDTSFVKVSKKMPKIPVLVSCEDDLSDREELLHGISE  
LDISNSDCFPSQLLVHGALAFPLGLDSYHGCVIAAARYGRGRVVVTGHKVLFVVGKLGPFLLNAVRWLDGGRRGK  
IVVQTELRTLSGLLAVGGIDTSIEPNLTSDASVYCFEPVSEVGKELQEFVAEGGGLFVGAQAWWWAFKNPGVSP  
LARFPGNLLLNPFGISITSQSLNPGPFRTPKAGIRTYHFRSTLAEFQVIMGRKRGVNEKGWLAKLGPDGAFLQI  
PAEEIPAYMSVHRLLRKLLSRYRLPVATRENPVINDCCRGAMLSLATGLAHSGSDLSLLVPEIEDMYSSPYLRPS  
ESPITVEVNCTNPGTRYCWMSTGLYIPGRQIIIEVSLPEAAASADLKIQIGCHTDDLTRASKLFRGPLVINRCCLD  
KPTKSITCLWGGLLYIIIVPQNSKLGSVPVTVKGAVHAPYYKLGETTLEEWKRRIQENPGPWGELATDNIILTVPT  
ANLRTLENPEPLRLRWDEVMAVARLGAEPFPLRLPQRIVADVQISVGWMHAGYPIMCHLESVQELINEKLIRTK  
GLWGPVHELGRNQQRQEWEPFPHTEATCNLWCVVVHETVLGIPRSRANIALWPPVREKRVRIYLSKGNVKNWN  
AWTALETYLLQLEAFGWEPFIRLFTTEYRNQTNLPTENVDKMNLWVKMFHQVQKNLAPFFEAWAWPIQKEVATSL  
AYLPEWKENIMKLYLLTQMPH



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**FIGURE 439**

GAACCGTTTACTCGCTGCTGTGCCCATCTATCAGCAGGCTCCGGGCTGAAGATTGCTTCTCTTCTCTCCTCCAAG  
GTCTAGTGACGGAGCCCGCGCGCGGCCACCATGCGGCAGAAGGCGGTATCGCTTTTCTTGTGCTACCTGCTGC  
TCTTCACTTGCAGTGGGGTGGAGGCAGGTGAGAATGCGGGTAAGGATGCAGGTAAGAAAAAGTGCTCGGAGAGCT  
CGGACAGCGGCTCCGGGTTCTGGAAGGCCCTGACCTTCATGGCCGTCGGAGGAGGACTCGCAGTCGCCGGGCTGC  
CCGCGCTGGGCTTCACCGGCGCCGGCATCGCGGCCAACTCGGTGGCTGCCTCGCTGATGAGCTGGTCTGCGATCC  
TGAATGGGGCGGCGTGCCCGCCGGGGGGCTAGTGGCCACGCTGCAGAGCCTCGGGGCTGGTGGCAGCAGCGTCG  
TCATAGGTAATATTGGTGCCCTGATGGGCTACGCCACCCACAAGTATCTCGATAGTGAGGAGGATGAGGAGTAGC  
CAGCAGCTCCCAGAACCTCTTCTTCCCTTCTTGGCCTAACTCTTCCAGTTAGGATCTAGAACTTTGCCTTTTTTTT  
TTTTTTTTTTTTTTTTTGAGATGGGTTCTCACTATATTGTCCAGGCTAGAGTGCAGTGGCTATTCACAGATGCGA  
ACATAGTACACTGCAGCCTCCAACCTCCTAGCCTCAAGTGATCCTCCTGTCTCAACCTCCCAAGTAGGATTACAAG  
CATGCGCCGACGATGCCCAGAATCCAGAACTTTGTCTATCACTCTCCCCAACCAACCTAGATGTGAAAACAGAATA  
AACTTCACCCAGAAAA

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**FIGURE 440**

MRQKAVSLFLCYLLLF TCSGVEAGENAGKDAGKKKCSSESSDSGSGFWKALTFMAVGGGLAVAGLPALGFTGAGIA  
ANSVAASLMSWSAILNGGGVPAGGLVATLQSLGAGGSSVVIGNIGALMGYATHKYLDSEEDDEE

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**FIGURE 441**

ACCTCCCAACCAAGCCCTCCAGCAAGGATTCAGGAGTGCCCCCTCGGGCCTCGCCATGAGGCTCTTCCTGTCGCTC  
CCGGTCCTGGTGGTGGTTCTGTCGATCGTCTTGGAAGGCCAGCCCCAGCCCAGGGGACCCCAGACGTCTCCAGT  
GCCTTGATAAGCTGAAGGAGTTTGGAACACACTGGAGGACAAGGCTCGGGAACTCATCAGCCGCATCAAACAG  
AGTGAACTTTCTGCCAAGATGCGGGAGTGGTTTTTCAGAGACATTTTCAGAAAGTGAAGGAGAACTCAAGATTGAC  
TCATGAGAGGACCTGAAGGGTGACATCCAGGAGGGGCCTCTGAAATTTCCCACACCCCAGCGCCTGTGCTGAGGACT  
CCCGCCATGTGGCCCCAGGTGCCACCAATAAAAATCCTACCG

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**FIGURE 442**

MRLFLSLPVLVVLSIVLEGPAPAQGTPDVSSALDKLKEFGNTLEDKARELISRIKQSELSAKMREWFSETFQKV  
KECLKIDS

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**FIGURE 443**

CTGGCTTCGGCCTCAGCCCCACCATGGTGACGCTTGCTGAACTGCTGGTGCTCCTGGCCGCTCTCCTGGCCACGG  
TCTCGGGCTATTTTCGTTAGCATCGACGCCCATGCTGAAGAGTGCTTCTTTGAGCGGGTCACCTCGGGCACCAAGA  
TGGGCCTCATCTTCGAGGTGGCGGAGGGCGGCTTCCTGGACATCGACGTGGAGATTACAGGACCAGATAACAAAG  
GAATTTACAAAGGAGACAGAGAATCCAGTGGGAAATACACATTTGCTGCTCACATGGATGGAACATACAAATTTT  
GTTTTAGTAACCGGATGTCCACCATGACTCCAAAAATAGTGATGTTTACCATTGATATTGGGGAGGCTCCAAAG  
GACAAGATATGGAAACAGAAGCTCACCAGAACAAGCTAGAAGAAATGATCAATGAGCTAGCAGTGGCGATGACAG  
CTGTAAAGCACGAACAGGAATACATGGAAGTCCGGGAGAGAATACACAGAGCCATCAACGACAACACAAACAGCA  
GAGTGGTCCTTTGGTCCTTCTTTGAAGCTCTTGTTCTAGTTGCCATGACATTGGGACAGATCTACTACCTGAAGA  
GATTTTTTTGAAGTCCGGAGAGTTGTTTTAAAAAGCCTCTTCCTGATGATCCCAACTCAGAATTCAGTGTTTACCAA  
ACACCTTGGTCATAATAATGTCATTAGTTTCTCCATTTTTATTTTCTGAACTGTACATTACAACTTATGTTTCT  
TTGAGATTAATAGATATTGGGGGAAAAACGCCTTTTTAGGAAAATTATAGTGAAAATTTGACAGTTGATTGGCAT  
AATTTCTTGTTTGAATGCTGCCTCCATTATATAGGTCCTTCAGGAACTCAAACACTGTAAGTGAATATGGGAG  
TATAGTTTTTATTATTTCTTCTTTTCTTTTGTGTTTCATAATATAATGCAGTTTGTTCAGGAAATCAGCACAAAG  
CCTGATAGTACTTTACTAAATGACTGCATTCTTTGGATTCTTCAGTCTATGGTTCAAGTCACTAAAGATTCA  
TTTTGTTGAGTCCTTATGAGAAACAGCAGTATGAATCTTGACGGTTTCTGCCCCGTCCTAATGGCAGAGCTCTCTG  
ACTTGGGTGTATGCTGCCAGGCTGGGTACTTTTCTACTTTGTTTTCTTGTTTTGCTTTAAACTACGACTCAGCA  
TACATTTTCCACATACATTTTTTACATTGTACCTTAGGACTCAGTCATCTCCACTTAAATTGATGACACAAGCAG  
CTAATAACCATTTCTGGGTTTCTGCCTAACCCCTAATTGTCTGTAAAGCCAATTCTCTGGGTGTCCAGTGAG  
TGGTGGCTTTTTTTCTTTCCACATTGGCACATTCACCTCTCCACTCTTGGCATGTAAGAAATAAGCATTTACAT  
AATTGGAAAAATCTGGATTTCTGATGCCAAAGGGTTAAAGCTTCTTGGATTTTCAATTCATTGATATACAGCCACT  
ATTTTATTTTTGATCAGTGGCCTTTGGGCCACTGTTTCAAGGTACTGACCATCAGTGTGAGCATTAGGGTTTTGGT  
TTTTGTTTCTTTGGGTATTTCTTTTGGCACATGTGAATCTTGTTTTGTGTAAAATGAAATTACTTTCTCTTG  
TTCTCTGATGATGGGTTTAAAATTTAAAGAGCATCCGGTTTTGGTATGGGGATGATCCAGGATTATGTTGTGACT  
GATACATATTAGTTACTTGIGCTTTTTTTTTTTTTTTTTTTGGATCTTTGCAAGGGCAAACTACAAGTAACGAGTT  
TTATATAATTAATTTAAATTTGTTACAGGTTTTTCATGTTTCAAGGATAAAACCATACTTCCACCTTGGGTGAGAACAC  
TTGCAACAGTTTATTAATGAGGTGACTTTACCTTAGGACAACGTGTCATGCCAAGTTTTTTGTGTGTGTGAAA  
CACTTCAAACTGATTTAAAGATGTAAATTTAAATTTGGTTGTATCTAATATGCCCCAGGTTTCGGTAAATAAAC  
AATTCTTTTTAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 444**

MVTLAELLVLLAALLATVSGYFVSIDAHAECCFFERVTSGTKMGLIFEVAEGGFLDIDVEITGPDNKGIIYKGDRE  
SSGKYTFAAHMDGTYKFCFSNRMSTMTPKIVMFTIDIGEAPKGQDMETEAHQNKLEEMINELAVAMTAVKHEQEY  
MEVRERIHRANDNTNSRVVLWSFFEALVLVAMTLGQIYYLKRFFEVRVV

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**FIGURE 445**

GCACGAGGAAGCCACAGATCTCTTAAGAACTTTCTGTCTCCAAACCGTGGCTGCTCGATAAAATCAGACAGAACAG  
TTAATCCTCAATTTAAGCCTGATCTAACCCCTAGAAACAGATATAGAACAATGGAAGTGACAACAAGATTGACAT  
GGAATGATGAAAATCATCTGCGCAACTGCTTGGAATGTTTCTTTGAGTCTTCTCTATAAGTCTAGTGTTTCATGG  
AGGTAGCATTGAAGATATGGTTGAAAGATGCAGCCGTCAGGGATGTACTATAACAATGGCTTACATTGATTACAA  
TATGATTGTAGCCTTTATGCTTGGAATTATATTAATTTACGTGAAAGTTCTACAGAGCCAAATGATTCCCTATG  
GTTTTCACTTCAAAGAAAAATGACACCACTGAAATAGAACTTTACTCTTAAATACAGCACCAAAAAATTATTGA  
TGAGCAACTGGTGTGTCGTTTATCGAAAACGGATATTTTCATTATATGTGCGAGATAATAAAATTTATCTAGATAA  
AATGATAACAAGAACTTGAACTAAGGTTTTATGGCCACCGTCAGTATTTGGAATGTGAAGTTTTTCGAGTTGA  
AGGAATTAAGGATAACCTAGACGACATAAAGAGGATAATTAAGCCAGAGAGCACAGAAATAGGCTTCTAGCAGA  
CATCAGAGACTATAGGCCCTATGCAGACTTGGTTTCAGAAATTCGTATTCTTTTGGTGGGTCCAGTTGGGTCTGG  
AAAGTCCAGTTTTTTCAATTCAGTCAAGTCTATTTTTCATGGCCATGTGACTGGCCAAGCCGTAGTGGGGTCTGA  
TACCACCAGCATAACCGAGCGGTATAGGATATATTCTGTAAAGATGGAAAAATGGAAAATCTCTGCCATTTAT  
GTTGTGTGACACTATGGGGCTAGATGGGGCAGAAGGAGCAGGACTGTGCATGGATGACATTCCCCACATCTTAAA  
AGGTTGTATGCCAGACAGATATCAGTTTAATTCCTGTAACCAATTACACCTGAGCATTCTACTTTTATCACCTC  
TCCATCTCTGAAGGACAGGATTCAGTGTGTGGCTTATGTCTTAGACATCAACTCTATTGACAATCTCTACTCTAA  
AATGTTGGCAAAAGTGAAGCAAGTTCACAAAGAAGTATTAACTGTGGTATAGCATATGTGGCCTTGCTTACTAA  
AGTGGATGATTGCAGTGAGGTTCTTCAAGACAACTTTTTAAACATGAGTAGATCTATGACTTCTCAAAGCCGGGT  
CATGAATGTCCATAAAATGCTAGGCATTCTATTTCCAATATTTTGATGGTTGGAAATTATGCTTCAGATTTGGA  
ACTGGACCCCATGAAGGATATTCTCATCTCTCTGCACTGAGGCAGATGCTGCGGGCTGCAGATGATTTTTTAGA  
AGATTTGCCTCTTGAGGAACTGGTGCAATTGAGAGAGCGTTACAGCCCTGCATTGAGATAAGTTGCCTTGATT  
CTGACATTTGGCCCAGCCTGTACTGGTGTGCCGCAATGAGAGTCAATCTCTATTGACAGCCTGCTTCAGATTTTG  
CTTTTGTTTCGTTTGCCTTCTGTCCTTGGAACAGTCATATCTCAAGTTCAAAGGCCAAAACCTGAGAAGCGGTGG  
GCTAAGATAGGTCTTACTGCAAACACCCCTCCATATTTCCGTACCATTTACAATTCAGTTTCTGTGACATCTTT  
TTAAACCACTGGAGGAAAAATGAGATATTCTCTAATTTATTCTTCTATAACACTCTATATAGAGCTATGTGAGTA  
CTAATCACATTGAATAATAGTTATAAAATTATTGTATAGACATCTGCTTCTTAAACAGATTGTGAGTTCCTTTGAG  
AAACAGCGTGGATTTTACTTATCTGTGTATTACAGAGCTTAGCACAGTGCCTGGTAATGAGCAAGCATACTTGC  
CATTACTTTTCTTCCCACTCTCTCCAACATCACATTCACTTTAAATTTTTCTGTATATAGAAAGGAAAACCTAGC  
CTGGGCAACATGATGAAACCCCATCTCCACTGC

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**FIGURE 446**

MVERCSRQGCTITMAYIDYNMIVAFMLGNYINLRESSTEPNDSLWFSLQKKNDTTEIETLLLNNTAPKIIDEQLVC  
RLSKTDIFIICRDNKIYLDKMITRNLKLRFYGHRQYLECEVFRVEGIKDNLDDIKRIIKAREHRNRLADIRDYR  
PYADLVSEIRILLVGPVSGSKSSFFNSVKSIFHGHVTGQAVVGSDDTSITERYRIYSVKDGKNGKSLPFMLCDTM  
GLDGAEGAGLCMDDIPHILKGCMPPDRYQFNSRKPITPEHSTFITSPSLKDRIHCVAYVLDINSIDNLYSKMLAKV  
KQVHKEVLNCGIAYVALLTKVDDCSEVLQDNFLNMSRSMTSQSRVMNVHKMLGIPISNILMVGNYSDELDPMK  
DILILSALRQMLRAADDFLEDLPLEETGAIERALQPCI



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**FIGURE 447**

GAATTCCGGGCGCCTGGAGCCACACAGGGATCCGGAGCCTGGGGGAAAAGCGGCGCGGGAGCCGGCACCCACCGC  
TGGAGGGGCGGCGACGGCGGCCGTAGCGACCTCGGGAGGCAAGCGGAGCCGCC**ATGGCC**GAGTTCCCGTCGAAAAG  
TTAGCACGCGGACCAGCAGTCTCTGCGCAGGGCGCCGAAGCCTCGGTGTCGGCGCTGCGCCCGGACCTGGGGCTTCG  
TGGCTCCCGCCTCGGGGCGCTCATGCTGCTGCAGCTGGTGCTGGGGCTGCTGGTGTGGGCGCTGATTGCGGACA  
CCCCGTACCACCTGTATCCGGCCTATGGCTGGGTGATGTTTCGTCGCTGTCTTCCTCTGGCTGGTGACAATCGTCC  
TCTTCAACCTCTACCTGTTTCAGCTGCACATGAAGTTGTACATGGTTCCCTGGCCACTGGTGTTAATGATCTTTA  
ACATCAGCGCCACCGTTCTCTACATCACCGCCTTCATCGCCTGCTCTGCGGCAGTTGACCTGACATCCCTGAGGG  
GCACCCGGCCTTATAACCAGCGCGCGGCTGCCTCGTTCTTTGCGTGTTTGGTGATGATCGCCTATGGAGTGAGTG  
CCTTCTTCAGCTACCAGGCCTGGCGAGGAGTAGGCAGCAATGCGGCCACCAGTCAGATGGCTGGCGGCTATGCC**T**  
**AA**ACCACCTGTGCCACGGCCCCCTCTGGGGCTGAAGCCGCCGCTGGGTACAGAGCAGGGTCACCTGCAAGCCT  
GAAGCTGGGGAGCCCTGCGTGAGTCAAGCCCAACAGGGACTGCATTTGCTCCTCTCTGCCCCTCAGACATAAGCT  
CTCACAGCGCTAAGGAAGCAGGCCCAGGCTGGCAGGCATCTCGGCTTGCAAGGAGGCCAACTGCTGAGACCTCTTC  
TCCATCCCCCTTATTCAGTGGAAGATGACGGGGGATCTGAGGCTGTGTCTCTGCCTTGCTTTAGAGGACTTCAG  
CGTCCAAGACTGGGGCCACCCCTTCTCACCAGCACTAAATGCACTAACAAGGACTCCAGACCTGCAGCCCCAGAC  
CCGCCGTAGTATAAGCCTAACAAGCAACACGTAGCACCTTAGTCTTTGTTCCAGGAGAGCTGAGCAAGCTGGTGA  
AACCACCTCTCCTTCCTTTAAACACCGTTTCAACCAACCTCTCCCTGGAGCCAACCTGTAAAAAGTGGGTTGATTG  
CTGACAGCATGGTCTTCCCTCCCTGCATTTCAAGACATACCAGTTACTGAAAGCAAATCAGTTTTAAGTGATTTCT  
CAGTGCTGAAAAGCCTGTCCAGGTTTCCCTTCCCTTTCCCAAGCCTCTCTCTGTAATACTCCCTTTGGGCGAAGCT  
AACATCGGTGCCTCCCCGACCTTGCTGACTAGGCACATGGGACGCAAAGGAGGGAGGGAAGCAAGGCCTTGCTG  
GCGAGTTGTCATGTGGTTGGTGGTGACTGTTTTATTTTTTTTAATAAAAAATAAGATGAGAGAAATTAAAAAAA  
ACCG

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**FIGURE 448**

MAEFPSKVSTRTSSPAQGAEASVSALRPDLGFVRSRLGALMLLQLVLGLLVWALIADTPYHLYPAYGWVMFVAVF  
LWLVITIVLFNLYLFQLHMKLYMVPWPLVLMIFNISATVLYITAFIACSAAVDLTSLRGTRPYNQRAAASFFACLV  
MIAYGVSAFFSYQAWRGVGSNAATSQMAGGYA

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**FIGURE 449A**

AATACACCCCGGGCAGGTGGAGCGCTCGCGGCTGCTCGCGGCGAGCCCGGGAGTGATGGCGAGGCCCTGCGGGC  
GGCCAGCGCCTGAGGCGCCCCGCCCCGCCCCGCGCGGCCCTCCCCGCGGCCCTGCCCTGCCCTGCTCC  
CTGCCGCGGCTGCGGGCGCTTCCTAGTCCGCTCGGGCGGCGCCAGGCGAGGTGCGGCCTCCGCACAGGCCGG  
GGGGCGTAGGCGCGCGGGGCCCCGCCATGGCTGCGTGGAGCTCTACACAAAGTTTGCCAGGGTTTGGATACCTGA  
TCCAGAGGAAGTCTGGAAGTCAGCAGAGCTGCTCAAAGATTATAAGCCAGGAGATAAAGTCCTCCTGCTTCACCT  
CGAGGAAGGAAAGGATTGGAATACCATCTAGATCCAAAGACCAAGGAGCTGCCTCACTTACGAAATCCTGACAT  
ACTTGTGGTGAAAATGACCTCACAGCCCTCAGCTATCTTCATGAGCCTGCTGTGCTCCATAATCTCAGAGTCCG  
CTTTATTGATTCCAACTTATTTATACGATTGTGGTATAGTCTAGTAGCTATAAATCCCTATGAACAGCTGCC  
TATTTATGGAGAAGATATTATTAATGCATACAGTGGTCAGAACATGGGTGATATGGATCCACATATCTTTGCAGT  
AGCTGAAGAAGCTTACAAGCAAAATGGCCAGAGATGAACGAAATCAGTCCATCATCGTAAGTGGAGAGTCTGGGGC  
AGGAAAAACAGTCTCAGCTAAGTATGCCATGCGATACTTTGCAACTGTGAGTGGTTCTGCCAGTGAAGGCAATGT  
GGAGGAAAAGGTCTTGACCTCCAACCCCATCATGGAGTCCATTGGAAATGCTAAAAACAACAGGAATGATAATAG  
CAGCCGTTTTGGGAAGTATATTGAGATTGGTTTTTGATAAGAGATATCGAATCATTGGTGCCAATATGAGAACTTA  
TCTTTTAGAGAAATCCAGAGTGGTATTCAGGCAGAAAGAGGAGAGAACTATCATATCTTCTATCAGCTTTGTGC  
CTCAGCAAAGTTACCTGAATTTAAAATGCTACGATTAGGAAATGCAGATAACTTTAATTACACAAAACAAGGAGG  
CAGTCTGTGATTGAAGGAGTGGATGATGCAAAGGAGATGGCACATACTAGGCAGGCCTGCACCTTTGCTAGGAAT  
TAGTGAATCTCATCAATGGGAATTTTCCGAATACTTGCTGGCATCCTTCACTTAGGCAATGTTGGATTACATC  
CCGAGATGCAGACAGCTGCACAATACCTCCCAAGCATGAACCTCTCTGCATCTTCTGTGACCTCATGGGTGTGGA  
CTATGAGGAGATGTGTCACTGGCTCTGCCATCGGAACTGGCTACTGCCACAGAGACATACATCAAGCCCATCTC  
CAAGCTGCAGGCCACGAATGCCCCGCGATGCTTTGGCCAAACACATCTATGCCAAGCTCTTTAACTGGATTGTAGA  
TAATGTCAATCAGGCTCTCCATTCTGCTGTCAAACAGCACTCTTTTATTGGTGTGCTAGACATTTACGGATTGGA  
AACATTTGAGATAAATAGTTTTGAACAGTTTTGCATAAATTATGCAATGAAAACTACAGCAACAATTCATAT  
GCATGTCTTCAAATTGGAGCAAGAAGAATATATGAAGGAACAAATTCATGGACACTCATAGATTTTTATGATAA  
TCAGCCTTGTATTAATCTTATAGAATCAAACTAGGCATTCTAGATTTACTGGATGAGGAATGCAAGATGCCTAA  
AGGCACAGATGACACCTGGGCCCCAAAATTTGTACAACACACATTTGAACAAATGTGCACTCTTTGAAAAGCCTCG  
TCTATCAAACAAAGCTTTTCATCATCCAACATTTTGCTGACAAAAGTGGAAATACCAGTGTGAAGGATTTCTCGAAAA  
GAATAAAGACACCGTTTTTTGAAGAACAATTAAGTTCTTAAATCAAGCAAGTTTAAGATGTACCAGAACTATT  
TCAAGATGATGAGAAGGCCATCAGTCCAACCTCAGCCACCTCCTCAGGGCGCACACCCCTCACACGAACTCCTGC  
AAAGCCCCACAAAGGCAGACCAGGCCAAATGGCCAAAGAGCACAAGAAAACAGTGGGGCATCAGTTCAGAACTC  
CCTGCACCTGCTTATGGAGACACTCAATGCCACTACCCCTCACTATGTGCGCTGTATCAAGCCTAATGACTTCAA  
GCTCCCATTACGTTTGATGAGAAGAGGGCAGTGCAGCAGCTGAGAGCATGTGGTGTCTGGAACCATCCGAAT  
CAGTGGCGCCGGTTTCCCCTCACGGTGGACTTACCAAGAATTTTTAGCCGCTACCGTGTCTAATGAAGCAGAA  
AGATGTGCTGAGTGACAGAAAGCAAACATGCAAGAATGTGTTAGAGAACTGATACTGGACAAGGACAAATACCA  
GTTTGGTAAGACAAAGATCTTTTTCCGTGCCGGTCAAGTGGCCTATCTAGAAAAATTGAGAGCTGACAACTGAG  
AGCTGCCTGCATCCGGATCCAGAAGACCATCCGAGGGTGGCTGCTGAGAAAGAAGTACCTACGCATGCGGAAGGC  
AGCCATCACCATGCAGAGATACGTGCGGGGCTACCAGGCCGATGCTATGCTAAGTTTCTGCGCAGAACCAAGGC  
AGCAACCATCATTCAAAAGTACTGGCGCATGTATGTGGTCCGAGGAGGTACAAGATTAGACGAGCTGCCACTAT  
TGTTCTTCAGTCTTACTTGCGAGGCTTCTTGCCAGAAATAGGTATCGCAAGATACTCCGTGGGCACAAAGCAGT  
CATCATTAGAAGCGAGTCCGGGGCTGGCTGGCCCGCACACACTACAAGAGGAGCATGCATGCCATCATCTACCT  
TCAGTGTGCTTCAGGCGGATGATGGCCAAGCGTGAGCTAAAGAAGCTCAAAATCGAGGGCTCGCTCAGTGGAGCG  
CTATAAGAAGCTGCGCATCGGCATGGAGAACAAGATCATGCAGCTGCAGCGCAAAGTTGATGAGCAGAACAAAGA  
CTACAAATGCCTTGTGGAGAACTAACCAATCTGGAAGGAATATACAACTCTGAGACTGAGAACTACGAAGTGA  
CTTAGAACGTCTTCAACTAAGTGAAGAGGAAGCGAAAGTTGCCACTGGGCGGGTCTTGTGCTGAGGAGGAAAT  
TGCCAAGCTCCGGAAGACCTGGAGCAAACCTGTTTCAAGAGAAAAATGCATTGAGGAACATGCAGATCGATACAA  
ACAAGAAACAGAGCAGCTGGTATCAAATCTGAAGGAAGAAATACTTTGCTGAAGCAAGAAAAAGAGCCCTCAA  
TCACCGCATCGTGCAGCAGGCTAAGGAGATGACAGAACTATGGAGAAGAAGTTAGTAGAAGAAACGAAACAAC  
GGAACCTCGACCTTAATGATGAAAGGCTGAGATATCAGAACCTTCTGAATGAGTTCAGTCGCTGGAAGAAAGATA  
TGATGACCTCAAGGAAGAGATGACCCTTATGGTGCATGTGCCTAAGCCTGGACACAAGAGAACAGACTCCACCCA

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**FIGURE 449B**

CAGCAGCAACGAGTCTGAATATATCTTTAGCTCTGAAATTGCAGAAATGGAAGACATTCCATCAAGGACAGAGGA  
ACCAAGTGAGAAGAAGGTACCTCTGGACATGTCATTGTTTCCTTAAGCTCCAGAAGCGGGTCACAGAGCTGGAGCA  
GGAGAAGCAGGTGATGCAGGATGAGCTGGACCGCAAGGAGGAGCAGGTGCTCCGCAGCAAGGCCAAGGAAGAAGA  
AAGACCACAAATTAGAGGTGCAGAACTGGAATATGAGTCACTCAAGCGTCAAGAACTAGAATCAGAAAAACAAAAA  
ACTGAAGAATGAGCTAAATGAGTTGCGCAAGGCCCTCAGTGAGAAAAGTGCCCCAGAGGTGACCGCCCCAGGTGC  
ACCTGCCTACCGTGTCTCATGGAGCAGCTGACCTCTGTGAGCGAGGAGCTTGATGTCCGCAAGGAGGAAGTCCT  
CATCTTAAGGTCTCAACTGGTGAGCCAGAAAAGAGGCCATCCAACCCAAGGATGACAAGAATACAATGACAGATT  
CACAATACTTTTGAAGATGTACAAAAATGAAAGATAAAGGTGAAATAGCACAAGCATACATTGGTTTGAAAGA  
AACAAATAGATCATCTGCTCTGGATTACCATGAGTTGAATGAGGATGGAGAGCTGTGGCTGGTTTATGAAGGGTT  
AAAACAAGCCAATAGGCTCCTGGAATCCCAGCTGCAGTCACAGAAGAGGAGCCATGAGAATGAGGCCGAGGCCCT  
CCGTGGGGAGATCCAGAGCCTGAAGGAGGAGAACAACCGACAGCAGCAGCTGCTGGCCAGAACCTGCAGCTGCC  
CCCAGAGGCCCGCATTGAGGCCAGCCTGCAGCACGAGATCACCCGGCTGACCAACGAAAACCTTGGATTGTGGA  
ACAACTTGAAAAACAGGATAAGACGGTCCGTAAGTGAAGTATTTGCCAAAAAAATTGGCGA  
ACTAGAAGTGGGCCAGATGGAGAACATATCCCCAGGACAGATCATTGATGAACCCATCCGACCAGTCAACATTCC  
CAGGAAAGAAAAGGATTTCCAAGGGATGCTGGAATACAAGAAGGAGGATGAGCAAAAACCTTGTTAAGAACCTGAT  
TCTGGAACCTGAAGCCACGTGGTGTAGCAGTCAATTTGATTCCAGGATTACCGGCATATATCTGTTCATGTGTGT  
TCGACATGCTGACTACCTGAATGATGATCAGAAAGTAAGGTCGTTGCTAACATCAACAATTAACAGCATCAAAAA  
AGTATTGAAGAAAAGAGGTGATGATTTTGAAACCGTCTCCTTCTGGCTCTCTAACACATGCCGATTTTTGCACTG  
CTTGAAACAGTACAGTGGAGAAGAGGGCTTTATGAAGCACAACACATCTCGCCAGAATGAACACTGCCTCACCAA  
TTTTGACCTGGCTGAGTATCGGCAGGTGCTGAGTGACTTGCCATTGAGATCTACCAGCAGCTCGTGCGGGTGT  
AGAGAACATCCTTCAGCCAATGATTGTCTCAGGCATGCTGGAACATGAAACGATTGAGGGCGTGTCTGGGGTGAA  
GCCCACAGGGTTGAGAAAGCGAACCTCCAGTATCGCCGATGAGGGCACCTACACACTGGACTCCATCCTCCGGCA  
GCTCAACTCCTTCCACTCGGTGATGTGTCAGCATGGCATGGACCTGAACTGATCAAGCAGGTGGTCAAGCAGAT  
GTTCTACATCATAGGGGCCATCACCTGAACAACCTTCTCCTGCGGAAGGACATGTGCTCCTGGAGTAAAGGCAT  
GCAGATCAGGTACAATGTCAGTCAACTGGAAGAATGGCTGCGTGACAAGAATCTGATGAATAGTGGGGCTAAAGA  
AACCTTGAACCTCTCATTGAGGTGCTCAACTTTTGCAAGTGAAAAAGAAAACAGATGATGATGCAGAAGCCAT  
TTGTTCTATGTGCAATGCTTTAACTACTGCCAGATTGTGAAAGTGTTGAATTTGTATACTCCAGTTAATGAGTT  
TGAAGAAAGAGTCTCTGTGTCGTTTATTGCTACTATACAGATGCGTTTACGAGACAGGAAAGACTCTCCCCAGCT  
GCTCATGGATGCTAAACACATCTTTCTGTACCTTTCTTTTCAACCCATCTTCCCTCGCACTAGAAACCATCCA  
GATTCCAGCCAGCCTCGGCCTGGGCTTTATTTACGGGTCTGAAAGTGATGTCCAGGCAAAAATTGACAATACAT  
TTCTTGCCCGAAATAAGAACCATTATTTCCAGTGAGTTACTGAAAATACATTTTAAAGAGAAAGTACTGATTA  
TCTCCCAAATGAGAAGTCATTAAGTGAATCTCCCTAGAATACTTTTATCACTTTGGAACAAAGATAGGCTCT  
TTCGTGCTGTGTTATCTTTATAGCAACACTCATCCTTAACCAACTAGGTACCGTGAGTTTACATACAGGAGAATG  
ATGGAAGGAAGGGAGGAAGGAAAGGAGGAGAAAAATGTGTCTTCAGCTGGCAGCATTTATTTTAAATCCTTAGCA  
CTGAGTTTGAATGGTATAAAAAAGTATAACTTCCATAGATGAGCTGTTGTTAGGAAGGCACCAAAGAACCTCCTCT  
GCACTAAACAGGAGAATGGAAAGAAAAGTCTCCATTGAGTACATATCATGTCAGTTTAGTAATCAATTATGTTGA  
TATTGTTAAACTGGTTCAAAGAAATAAAGTGGCAATATGTAAAGTAATTCCTCATTTGTGTCACTATGATATAGA  
GATATTAAAGGAATGTTGGTTTGCTA

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**FIGURE 450**

MAASELYTKFARVWIPDPEEVWKSAEELLKDYKPGDKVLLLHLEEGKDLEYHLDPKTKELPHLRNPDILVGENDLT  
ALSYLHEPAVLHNLVRVRFIDSKLIYTYCGIVLVAINPYEQLPYIGEDIINAYSGQNMGMDPHIFAVAEAYKQM  
ARDERNQSIIVSGESGAGKTVSAKYAMRYFATVSGSASEANVEEKVLTSNPIMESIGNAKTTRNDNSSRFGKYIE  
IGFDKRYRIIGANMRTYLLKESRVVFQAEERNYHIFYQLCASAKLPEFKMLRLGNADNFNYTKQGGSPVIEGVD  
DAKEMAHTRQACTLLGISESHQMGIFRILAGILHLGNVGFSTRDADSCITPPKHEPLCIFCDLMGVDYEEMCHWL  
CHRKLATATETYIKPISKLQATNARDALAKHIYAKLFNWIVDNNVQALHSQHSFIGVLDIYGFETFEINSFE  
QFCINYANEKLQQQFNMHVFKLEQEEYMKEQIPWTLIDFYDNQPCINLIESKLGILDLLDEECKMPKGTDDTWAQ  
KLYNTHLNKCALFEKPRLSNKAFFIQHFADKVEYQCEGFLEKNKDTVFEEQIKVLKSSKFKMLPELFDQDEKAIS  
PTSATSSGRTPLTRTPAKPTKGRPGQMAKEHKKTVGHQFRNSLHLLMETLNATTPHYVRCIKPNDFKLPFTFDEK  
RAVQQLRACGVLETIRISAAGFPPSRWTYQEFFSRYRVLMMKQKDVLSDRKQCTCKNVLEKLILDKDKYQFGKTKIFF  
RAGQVAYLEKLRLADKLRAACIRIQKTIRGWLRLKKYLRMRKAATMQRYVRGYQARCYAKFLRRTKAATIIQKYW  
RMYVVRRRYKIRRAATIVLQSYLRGFLARNRYRKILRGHKAVIIQKRVRGWLARTHYKRSMHAIYILQCCFRMM  
AKRELKKLKIERSVERYKKLRIGMENKIMQLQRKVDEQNKDYKCLVEKLTNLEGIYNSETEKLRSDIERLQLSE  
EEAKVATGRVLSLQEEIAKLKRDLEQTRSEKKCIEEHADRYKQETEQLVSNLKEENTLLKQEKALNHRIVQQAQ  
EMTETMEKKLVEETKQLELDELDERLRYQNLNEFSRLEERYDDLKEEMTLMVHVPKPGHKRTDSTHSSNESEYI  
FSSEIAEMEDIPSRTEEPSEKKVPLDMSLFLKLQKRVTELEQEKQVMQDELDRKEEQVLRSAKEEERPQIRGAE  
LEYESLKRQELESENKKLKNELNELRKALSEKSAPEVTAPGAPAYRVLMEQLTSVSEELDVRKEEVILILRSQVLS  
QKEAIQPKDDKNTMTDSTILLEDVQKMKDKGEIAQAYIGLKETNRSSALDYHELNEDGELWLVEGLKQANRLLE  
SQLQSQRSHENEAELRGEIQSLKEENNRRQQQLLAQNQLPPEARIEASLQHEITRLTNENLDLMEQLEKQDKT  
VRKLKKQLKVFACKIGELEVGMENISPGQIIDEPIRPVNIPRKEKDFQGMLEYKKEDEQKLVKNLILELKPGRV  
AVNLIPGLPAYILFMCVRHADYLNDDQKVRSLTSTINSIKKVLKRGDDFETVSFWSNTRFLHCLKQYSGEE  
GFMKHNTSRQNEHCLTNFDLAERYQVLSDLAIQIYQQLVRVLENILQPMIVSGMLEHETIQGVSGVKPTGLRKRT  
SSIADEGTYTLDLSILRQLNSFHSVMCOHGMDPELIKQVVKQMFYIIGAITLNNLLLRKDMCSWSKGMQIRYNVSQ  
LEEWLRDKNLMNSGAKETLEPLIQAAQLLQVKKKTDDDAEAIKSMCNALTTAQIVKVLNLYTPVNEFEERSVSF  
IRTIQMRLRDRKDSPLLMDAKHIFPVTFPFNPSSLALETIQIPASLGLGFISRV

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**FIGURE 451**

ATGTTTTTGTGCTTAGGATATGAATGGCTGAGCGGAGGCTGTAAACCTGGCACTCTGCTTGGGTTATCAATACT  
CTGGCTGACCATCGTCATCGTGGGACTGACTTTGGTGGAAGTCCTTGGTACTTATCATTACTGTGTTTCTGAGA  
AGTTATAAATTTGCCATCTCCCTCTGCACAACTTACCTTTGTGTGTCTTTTCTGAAGACTATCTTCCCGTCTCAA  
AATGGACATGATGGATCCACGGATGTACAGCAGAGAGCCAGGAGGTCCAACCGCCGTAGACAGGAAGGAATTAAA  
ATTGTCCTGGAAGACATCTTTACTTTATGGAGACAGGTGGAACCAAAGTTCGAGCTAAAAATCCGTAAGATGAAG  
GTGACAACAAAAGTCAACCGTCATGACAAAATCAATGGAAAGAGGAAGACCGCCAAAGAACATCTGAGGAAACTA  
AGCATGAAAGAACGTGAGCACGGAGAAAAGGAGAGGCAGGTGTCAGAGGCAGAGGAAAATGGGAAATTGGATATG  
AAAGAAATACACACCTACATGGAAATGTTTCAACGTGCGCAAGCGTTGCGGCGGGCGGGCAGAGGACTACTACAGA  
TGCAAAATCACCCCTTCTGCAAGAAAGCCTCTTTGCAACCGGGTCAGAATGGCGGCAGTGGAGCATCGTCATTCT  
TCAGGATTGCCCTACTGGCCCTACCTCACAGCTGAAACTTTAAAAAACAGGATGGGCCACCAGCCACCTCCTCCA  
ACTCAACAACATTCTATAATTGATAACTCCCTGAGCCTCAAGACACCTTCCGAGTGTCTGCTCACTCCCCTTCCA  
CCCTCAGCTCTACCCTCAGCGGATGATAATCTCAAGACACCTGCGGAGTGTCTGCTCTATCCCCCTCCACCCTCA  
GCGGATGATAATCTCAAGACACCTCCCGAGTGTCTGCTCACTCCCCTTCCACCCTCAGCTCCACCCTCAGCGGAT  
GATAATCTCAAGACACCTCCCGAGTGTGTCTGCTCACTCCCCTTCCACCCTCAGCGGATGATAATCTCAAGAAAC  
TAAGGAAGAATAAATAAATA

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**FIGURE 452**

MFCCLGYEWLSGGCKTWHSWVINTLADHRHRGTDFGGSPWLLIITVFLRSYKFAISLCTTYLCVSFLKTIFPSQ  
NGHDGSTDVQQRARRSNRRRQEGIKIVLEDIFTLWRQVETKVRKIRKMKVTTKVNHRDKINGKRKTAKHEHLRKL  
SMKEREHGEKERQVSEAEENGKLDMEIHTYMEMFQRAQALRRRAEDYYRCKITPSARKPLCNVRMAAVEHRHS  
SGLPYWPLYLTAETLKNRMGHQPPPTQQHSIIDNSLSLKTPECLLTPLPPSALPSADDNLKTPAECLLYPLPPS  
ADDNLKTPPECLLTPLPPSAPPSADDNLKTPPECVCSLPFHPQRMII SRN

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**FIGURE 453**

GAATTCCTCGGTTTCTTCTCCTAAAAATGTCTGATGCGGCCGCTTTTCTCGGTTCGGCAGCCGCCATGAATGCCAGCAGTTAC  
TCTGCAGAGATGACGGAGCCCAAGTCGGTGTGTGTCTCGGTGGATGAGGTGGTGTCCAGCAACATGGAGGCCACT  
GAGACGGACCTGCTGAATGGACATCTGAAAAAAGTAGATAATAACCTCAGCGGAAGCCCAGCGCTTCTCCTCCTTG  
CCTCGGAGGGCAGCTGTGAACATTGAATTCAGGGACCTTTCTATTTCGGTTCTGAAGGACCCTGGTGGAGGAAG  
AAAGGATACAAGACCCTCCTGAAAGGAATTTCCGGGAAGTTCAATAGTGGTGAGTTGGTGGCCATTATGGGTCTCT  
TCCGGGGCCCGGGAAGTCCACGCTGATGAACATCCTGGCTGGATACAGGGAGACGGGCATGAAGGGGGCCGTCCTC  
ATCAACGGCCTGCCCGGGACCTGCGCTGCTTCCGGAAGGTGTCTGCTACATCATGCAGGATGACATGCTGCTG  
CCGATCTCACTGTGCAGGAGGCCATGATGGTGTTCGGCAGATCTGAAGCTTCAGGAGAAGGATGAAGGCAGAAGG  
GAAATGGTCAAGGAGATACTGACAGCGCTGGGCTTGCTGTCTTTCGCCAACACGCGGACCAGGGAGCCTGTGAGGT  
GGTCAGCGCAAGCGCCTGGCCATCGCGCTGGAGCTGGTGAACAACCCCTCCAGTCATGTTCTTCGATGAGCCCACC  
AGCGGCCTGGACAGCGCCTCCTGCTTCCAGGTGGTCTCGCTGATGAAAGGGCTCGCTCAAGGGGGTTCGCTCCATC  
ATTTGCACCATCCACCAGCCCAGCGCCAAACTCTTCGAGCTGTTTCGACCAGCTTTACGTCTTGAGTCAAGGACAA  
TGTGTGTACCGGGGAAAAGTCTGCAATCTTGTGCCATATTTGAGGGATTGGGTCTGAACTGCCAACCTACCAC  
AACCCAGCAGATTTTGTTCATGGAGGTTGCATCCGGCGAGTACGGTGATCAGAACAGTCGGCTGGTGAGAGCGGTT  
CGGGAGGGCATGTGTGACTCAGACCACAAGAGAGACCTCGGGGGTGATGCCGAGGTGAACCCTTTTCTTTGGCAC  
CGCCCCCTCTGAAGAGGTAAAGCAGACAAAACGATTAAAGGGGTTGAGAAAGGACTCCTCGTCCATGGAAGGCTGC  
CACAGCTTCTCTGCCAGCTGCTCAGCAGTTCGTCATCCTCTTCAAGAGGACCTTCTCAGCATCATGAGGGAC  
TCGGTCTCTGACACACCTGCGCATCACCTCGCACATTGGGATCGGCCTCCTCATTGGCCTGCTGTACTTGGGGATC  
GGGAACGAAACCAAGAAGTCTTGAGCAACTCCGGCTTCTCTTCTTCTCCTCATGCTGTTCTCATGTTTCGCGGCC  
CTCATGCCTACTGTTCTGACATTTCCCCTGGAGATGGGAGTCTTTCTTCGGGAACACCTGAACTACTGGTACAGC  
CTGAAGGCCTACTACCTGGCCAAGACCATGGCAGACGTGCCCTTTCAGATCATGTTCCAGTGGCCTACTGCAGC  
ATCGTGTACTGGATGACGTCGCAGCCGTCCGACGCCGTGCGCTTTGTGCTGTTTGCCGCGCTGGGCACCATGACC  
TCCCTGGTGGCACAGTCCCTGGGCTGCTGATCGGAGCCGCTCCACGTCCCTGCAGGTGGCCACTTTCGTGGGC  
CCAGTGACAGCCATCCCCTGCTCCTGTTCTCGGGGTTCTTCGTGAGCTTCGACACCATCCCCACGTACCTACAG  
TGGATGTCCTACATCTCCTATGTCAGGTATGGGTTTCAAGGGGTCATCCTCTCCATCTATGGCTTAGACCGGGAA  
GATCTGCACTGTGACATCGACGAGACGTGCCACTTCCAGAAGTCGGAGGCCATCCTGCGGGAGCTGGACGTGGAA  
AATGCCAAGCTGTACCTGGACTTCATCGTACTCGGGATTTTCTTCATCTCCCTCCGCCTCATTGCCTATTTGGT  
CTCAGGTACAAAATCCGGGCAGAGAGGTAAACACCTGAATGCCAGGAAACAGGAAGATTAGACACTGTGGCCGA  
GGGCACGTCTAGAATCGAGGAGGCAAGCCTGTGCCGACCGACGACACAGAGACTCTTCTGATCCAACCCCTAGA  
ACCGCGTTGGGTTTGTGGGTGCTCTCGTGCTCAGCCACTCTGCCAGCTGGGTGGATCTTCTCTCCATTCCCCTT  
TCTAGCTTTAACTAGGAAGATGTAGGCAGATTGGTGGTTTTTTTTTTTTTTTAAACATACAGAATTTTAAATACC  
ACAACCTGGGGCAGAATTTAAAGCTGCAACACAGCTGGTGATGAGAGGCTTCTCAGTCCAGTCGCTCCTTAGCAC  
CAGGCACCGTGGGTCTGGATGGGGAACCTGCAAGCAGCCTCTCAGCTGATGGCTGCACAGTCAGATGTCTGGTGG  
CAGAGAGTCCGAGCATGGAGCGATTCCATTTATGACTGTTGTTTTTACATTTTCATCTTTCTAAGGTGTGTCT  
CTTTTCCAATGAGAAGTCAATTTTGAAGCCAAAAGTCGATCAATCGCATTCAATTTAAGAAATTATACCTTTTT  
AGTACTTGCTGAAGAATGATTTCAGGGTAAATCACATACTTTGTTTAGAGAGGCGAGGGGTTTAAACCGAGTCACC  
CAGCTGGTCTCATACATAGACAGCACTTGTGAAGGATTGAATGCAGGTTCCAGGTGGAGGGAAGACGTGGACACC  
ATCTCCACTGAGCCATGCAGACATTTTTAAAGCTATACACAAAATTGTGAGAAGACATTGGCCAACTCTTTCAA  
AGTCTTTCTTTTTCCACGTGCTTCTATTTTAAGCGAAATATATTGTTTGTCTTCTTAAAAA



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**FIGURE 454**

MAAFSVGTAMNASSYSAEMTEPKSVCSVDEVVSSNMEATETDLLNGHLKKVDNNLTEAQRFSSLPRAAVNIEF  
RDLSSVPEGPWWRKKGYKTLLKGISGKFNSGELVAIMGPSGAGKSTLMNILAGYRETGMKGAVLINGLPRDLRC  
FRKVSCYIMQDDMLLPHLTVQEAMMVSAHLKLQEKDEGRREMVKEILTALGLLSCANTRTGSLSGGQRKRLAIAL  
ELVNNPPVMFFDEPTSGLDSASCFQVVS LMKGLAQGGRSIICTIHQPSAKLFELFDQLYVLSQGQCVYRGKVCNL  
VPYLRDLGLNCBTYHNPADFVMEVASGEYGDQNSRLVRVREGMCDSDHKRDLGGDAEVNPFLWHRPSEEVKQTK  
RLKGLRKDSSSMEGCHSFSASCLTQFCILFKRTFLSIMRDSVLTHLRITSHIGIGLLIGLLYLIGIGNETKKVLSN  
SGFLFFSMLFLMFAALMPTVLTFFLEMGVFLREHLNYWYSLKAYYLAKTMADVFPQIMFPVAYCSIVYWMTSQPS  
DAVRFVLFAALGTMTSLVAQSLGLLIGAASTSLQVATFVGPVTAIPVLLFSGFFVSFDTIPTYLQWMSYISYVRY  
GFEGVILSIYGLDREDLHCDIDETCHFQKSEAILRELDVENAKLYLDFIVLGIFFISLRLIAYLVLRYKIRAER

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**FIGURE 455A**

CGGACCCCTGCGCGCCCCCGTCCCGGCTCCCGGCCGCTCGGGGGAGAAGGCGCCCGAGGGGAGGCGCCGGACAGA  
TCGCGTTTTCGGAGGCGGCGCAGGTGCTGTAAACTGCAAACCATAATCCTGTCTTAATACTGCAAACAAATCATAG  
TGGAACATAAGGGGAACCTTAATTTACTGTTTCCAGGTTAACTAAGGTCTCAGCTGTAAACCAAAGTGAGAGGAGA  
CATTAAGATTTTTCATTCTTACCGGGTTGTCTTCTTCTGAAGAGCAATGGAGCCGCTTTTACTTGGAAGAGGACT  
AATCGTATATCTAATGTTCCCTCCTGTTAAAATTCTCAAAAGCAATTGAAATACCATCTTCAGTTCAACAGGTTCC  
AACAAATCATAAAACAGTCAAAAGTCCAAGTTGCCTTTCCCTTCGATGAGTATTTTCAAATTGAATGTGAAGCTAA  
AGGAAATCCAGAACCAACATTTTCGTGGACTAAGGATGGCAACCCTTTTTATTTCACTGACCATCGGATAATTCC  
ATCGAACAATTCAGGAACATTTCAGGATCCCAAACGAGGGGCACATATCTCACTTTCAAGGGAAATACCGCTGCTT  
TGCTTCAAATAAACTGGGAATCGCTATGTCAGAAGAAATAGAATTTATAGTTCCAAGTGTTCCAAAATTTCCAAA  
AGAAAAAATTGACCCTCTTGAAGTGGAGGAGGGAGATCCAATTGTCCTCCCATGCAATCCTCCCAAAGGCCTCCC  
ACCTTTACACATTTATTGGATGAATATTGAATTAGAACACATCGAACAAGATGAAAGAGTATACATGAGCCAAA  
GGGAGATCTATACTTCGCAAACGTGGAAGAAAAGGACAGTCGCAATGACTACTGTTGCTTTGCTGCAATTTCCAAG  
ATTAAGGACTATTGTACAGAAAATGCCAATGAAACTAACAGTTAACAGTTTAAAGCATGCTAATGACTCAAGTTC  
ATCCACAGAAATTGGTTCCAAGGCAAAATCCATCAAGCAAAGAAAACCCAAACTGCTGTTGCCTCCCACTGAGAG  
TGGCAGTGAGTCTTCAATTACCATCCTCAAAGGGGAAATCTTGCTGCTTGAGTGTTTTGCTGAAGGCTTGCCAAC  
TCCACAGGTTGATTGGAACAAAATTGGTGGTGACTTACCAAAGGGGAGAGAAGCAAAGAAAATTATGGCAAGAC  
TTTGAAGATAGAGAATGTCTCCTACCAGGACAAAGGAAATTATCGCTGCACAGCCAGCAATTTCTTGGAACAGC  
CACTCACGATTTTCACGTTATAGTAGAAGAGCCTCCTCGCTGGACAAAGAAGCCTCAGAGTGCTGTGTATAGCAC  
CGGAAGCAATGGCATCTTGTTATGTGAGGCTGAAGGAGAACCTCAACCCACAATCAAGTGAGAGTCAATGGCTC  
CCCAGTTGACAATCATCCATTTGCTGGTGATGTTGTCTTCCCCAGGGAAATCAGTTTTACCAACCTTCAACCAAA  
TCATACTGCTGTGTACCAGTGTAAGCCTCAAATGTCCATGGAACATATCCTTGCCAATGCCAATATTGATGTTGT  
GGATGTCCGTCCATTGATACAAACCAAAGATGGAGAAAATTACGCTACAGTGTTGGGTACAGTGCTTTCTTACA  
TTGCGAGTTCTTTGCTTCACCTGAGGCAGTCGTGTCTTGGCAGAAGGTGGAAGAAGTGAACCCCTGGAGGGCAG  
GCGGTATCATATCTATGAAAATGGCACATTGCAGATCAACAGAACCACCGAAGAAGATGCTGGGTCTTACTCATG  
TTGGGTAGAAAATGCTATAGGAAAACTGCAGTCACAGCCAATTTGGATATTAGAAATGCTACAAAACCTTAGAGT  
TTCTCCTAAGAATCCTCGTATCCCCAAATTGCATATGCTTGAATTACATTGTGAAAGCAAATGTGACTCACATTT  
GAAACACAGTTTGAAGTTGTCTGGAGTAAAGATGGAGAAGCCTTTGAAATTAATGGCACAGAAGATGGCAGGAT  
AATTATTGATGGAGCTAATTTGACCATATCTAATGTAACCTTTAGAGGACCAAGGTATTTACTGCTGTTTCAGCTCA  
TACTGCTCTAGACAGTGCTGCCGATATAACTCAAGTAACTGTTCTTGATGTTCCGGATCCACCAGAAAACCTTCA  
CTTGCTCTGAAAGACAGAACAGGAGTGTTCCGGCTGACCTGGGAAGCTGGAGCTGACCACAACAGCAATATTAGCGA  
GTATATTGTTGAATTTGAAGGAAACAAAGAAGAGCCTGGAAGGTGGGAGGAACTGACCAGAGTCCAAGGAAAGAA  
AACCACAGTTATCTTACCTTTGGCTCCATTTGTGAGATACCAGTTCAGGGTCATAGCCGTGAACGAAGTAGGGAG  
AAGTCAGCCTAGCCAGCCGTCAGACCATCATGAAACACCACCAGCAGCTCCAGATAGGAATCCACAAAACATAAG  
GGTTCAAGCCTCTCAACCCAAGGAAATGATTATAAAGTGGGAGCCTTTGAAATCCATGGAGCAGAATGGACCAGG  
CCTAGAGTACAGAGTGACCTGGAAGCCACAGGGAGCCCCAGTGAGTGGAAGAAGAAGAAACAGTCACAAACCACAC  
ATTGCGGGTGATGACGCCTGCTGTCTATGCCCCCTTATGATGTCAAGGTCCAGGCTATCAATCAACTAGGATCTGG  
GCCTGACCCTCAGTCAGTGACTCTCTATTCTGGAGAAGACTATCCTGATACAGCTCCAGTGATCCATGGGGTGGA  
CGTTATAAACAGTACATTAGTTAAAGTTACCTGGTCAACAGTTCCAAAGGACAGAGTACATGGACGTCTGAAAGG  
CTATCAGATAAATTGGTGGAACAAAAGTCTGTTGGATGGAAGAACACATCCCAAAGAAGTGAACATTCTAAG  
ATTTTCAGGACAAAGAACTCTGGAATGGTTTCTTCTTATAGTGCTTTAGTGAATTTTCAATTTAAGCTCTTAGC  
CTATAACTCTAAAGGAGCTGGTCTGAAAGTGAGCCTTATATATTCAAAACACCAGAAGGAGTACCTGAACAGCC  
AACTTTTCTAAAGGTCATCAAAGTTGATAAAGACACTGCCACTTTATCTTGGGGACTACCTAAGAAATTAATGG  
AACTTAACTGGCTATCTTTTGCAATATCAGATAATAAATGACACCTACGAGATTGGAGAATTAATGATATTAA  
CATTACAACCTCATCAAAGCCCAGCTGGCACCTCTCAAACCTGAATGCAACTACCAAGTACAAATTTACTTTGAG  
GGCTTGCACTTCACAGGGCTGTGGAACCCGATCACGGAGGAAAGCTCCACCTTAGGAGAAGGGAGTAAAGGTAT  
CGGGAAGATATCAGGAGTAAATCTTACTCAAAAGACTCACCCAGTAGAGGTATTTGAGCCGGGAGCTGAACATAT  
AGTTTCGCTAATGACTAAGAATTGGGGCGATAACGATAGCATTTTTCAAGATGTAATTGAGACAAGAGGGAGAGA  
ATATGCTGGTTTATATGATGACATCTCCACTCAAGGCTGGTTTATTGGACTGATGTGTGCGATTGCTCTTCTCAC

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**FIGURE 455B**

ACTACTATTATTAACTGTTTGCTTTGTGAAGAGGAATAGAGGTGGAAAGTACTCAGTTAAAGAAAAGGAAGATTT  
GCATCCAGACCCAGAAATTCAGTCAGTAAAAGATGAAACCTTTGGTGAATACAGTGACAGTGATGAAAAGCCTCT  
CAAAGGAAGCCTTCGGTCCCTTAATAGGGATATGCAGCCTACTGAAAGTGCTGACAGCTTAGTCGAATACGGAGA  
GGGAGACCATGGTCTCTTCAGTGAAGATGGATCATTATTGGTGCCTACGCTGGATCTAAGGAGAAGGGATCTGT  
TGAAAGCAATGGAAGTTCTACAGCAACTTTTCCCCTTCGGGCATTAAACACAACATATGTAAGCAACGCTACTGGT  
TCACCCCAACCTTCCATATTTATCTGTTCAAAGGAGCAAGAACCTTTCATATAGGAATAGAAACATGCTGGCCGAA  
GATTTTCATCCAGAAGTCAACATCCTGCAATTATGTTGAAAAGAGTAGTACTTTCTTCAAAATATAAAATGCCAAG  
CACTTCAGGCCTATGTTTTGCTTATATTGTTTTCAGGTGCTCAAATGCAAAACACAAAACAAATCCTGCATTTA  
GATACACCTCAACTAAATCCAAAGTCCCCATTCAGTATATTCCATATTTGCCTGATTTTACTATTCCGGTGTGTTT  
GCATAGATGTTGCTACTTGGTGGGTTTTTCTCCGTATGCACATTGGTATACAGTCTCTGAGAACTGGCTTGGTGA  
CTTTGCTTCACTACAGGTTAAAAGACCATAAGCAAACCTGGTTATTTAAATGTAAAAAGGAATATGAAAGTCTTA  
TAAAACACTTCATTGAAAATATACAGTCTAAATTTATTATTTAAATTTTACTAGCAAAAGTCTTAGGTGAACAA  
TCAACTAGTATTTGTTGAGCTCCTATTTGCCAGAGATGGTCATATTTAAACAGAAGTATACGTTTTTTCAGTTTC  
AACATGAATTTTTTTTATTTCTGTGAGTTATGACATCCACGAGCATCACTTTTTGTGTCTGTTTTTTTTTTTTTCT  
TGGACTAAATTCAACTGCATGGAAGCGGTGGTCAGAAGGTTGTTTTATACGAGAACAGGCAGAAAGTGCCCATTG  
TTCAGGATTCTAATAGCTACATCTACTTAATATCTTCATTTCTAAATTGACTGCTTTTACCTTTTTTCTCATGTTT  
ATATAATGGTATGCTTGCATATATTTTCATGAATACATTGTACATATTATGTTAATATTTACACAATTTAAAAAT  
AGATGTGTTTTATTTTGAAGTGAGAAAATGAACATTAACAGGCATGTTTGTACAGCTAGAATATATTAGTAAGAT  
ACTGTTTTTCGTCATTCCAGAGCTACAATAAACACGAGGTTCCAAAGCTGAAGACTTTGTATAAAGTATTTG  
GGTTTTGTTCTTGTATTGCTTTCTTTCAACAGTTTCAAAATAAAATATCATACAAATATTGAGGGAAATGTTTTT  
ATATTTTTCAAAATAGGTTTTTATTGTTGAATGTACATCTACCCAGCCCCCTCAAAAGAAAAACTGTTTACATAG  
AAATTCCTACACATACGTTTGCCTATATGTTATTTTAAACATCTTTGTGGTGAGAATTTTTTCCCGATATTCTC  
CTTCTGTCAAAGTCAGAACAAATTCAGGGAATTTATTTTCTGGCAGTTGTGCTCCAGTCCTTTTAAATTTGTACA  
TGAACATGTTTTAGAAACAATATGGAGGATGATGCATACATGTCGGTCAAGTTTCAGCGCTCGACATTTTATGGAA  
AGATTTTTTTAACCTTACCACGAAATACTTAACACTGTTTAAAGTGAATTGACTTATTTCACTTTAGTTTTTGAA  
CTGTGATTATTGGTATACTGTTATATCCTCAACTTGGATTTATGGTAACCCCTTTTAGTTTCATGGAGACCAAAAT  
TTGGGGTATTTATAATAGTCAGCGCAGGAATGCACATGGAATATCTACTTGTCTTTTGAACCTCACGAGTCATC  
CAGAATGTATAGACAGGAAAAGCATGTCTTATTTAAAACTGTAATTTATGGGCTCAGGATCTGACCGCAGTCCCG  
GGAGTAAGCATTTCAAAGGGGGAAGGCAGTGTGGTCCCTACCCTGTGTGAATGTGAGGATGTAGACATCCATCAG  
TGCAACTCGAGCTCCATCCTCCTCCGATTTCTAAGGTTCCAGTTTTCTGGAGGGACAGTCATCATGTTTTGATTT  
ATCTGGGAGAAAACGTGGTGCACAGCTTGTGAGGAGGGCAAGGTTGTGACGTTTCGAGCTTAGTTCTGGTGTTAT  
TCTGTCTCCTCTTCTTTGTCATCAGCCAAAACGTGGTTTTTAAAGAGAGTCATGCAGGTTAGAAATAATGTCAA  
AATATTTAGGAATTTAATAACCTTTAAGTCAGAACTAAACAAATACTGAAATATTAGCTCTTCTACACTTCG  
TGTTCCCTTTAGCTGCCTGAAAATCAAGATTGCTCCTACTCAGATCTTCTGAGTGGCTAAAACCTATGGATATG  
AAAAATGAGATTGAATGATGACTATGCTTTGCTATCATTGTTACCTTTCTCAATACTATTTGGCAACTACTGGG  
ACTCTTCAGCACAAAAGGAATAGATCTATGATTGACCTGATTTTAAATTGTGAAATATATGATTCATATATTTT  
ATGAATCAGAATAACCTTCAAATAAAATAAATCTAAGTCGGTTAAATGGATTTCATGATTTTCCCTCAGAAAAT  
GAGTAACGGAGTCCACGGCGTGCAATGGTAATTATAAATTGGTGATGCTTGTGTTGCAAATTGCCCACTCGTGAT  
AAGTCAACAGCCAATATTTAAAACTTTGTTCTGTTACTGGCTTTACCCTAACTTTCTCTAGTCTACTGTCAATATC  
ATTTTAATGTAATTGATTGTATATAGTCTCAAGAATGGTTGGTGGGCATGAGTTCTAGAGAACTGTCCAAGGGT  
TGGGAAAATCCAAATTCCTTCTTCCGCTCCAGCACTGATTTTGTACATAAACATTAGGCAGGTTGCTTAACCTTT  
TTATTTCAAACCTCTCTCAACTCTAAAGTGCTAATAATAATCTCAGTTACCTTATCTTTGTACACAGGGTGTTCTTT  
TTTATGAAGAAAAATTTGAAAATGATAAAAGCTAAGATGCCTTCTAAGTTTCTAAGCAAAACCTTTAACTAATTAT  
GTATCTGAAAGTCACCCCCACATACCAACTCAACTTTTTTCTGTGAACACATAAAATATATTTTATAGAAAAAC  
AAATCTACATAAAATAAATCTACTGTTTAGTGAGCAGTATGACTTGTACATGCCATTGAAAATTATTAATCAGAA  
GAAAATTAAGCAGGGTCTTTGCTATACAAAAGTGTTTTCCACTAATTTTGCATGCGTATTTATAAGAAAAATGTG  
AATTTGGTGGTTTTATTCTATCGGTATAAAGGCATCGATATTTTAGATGCACCCGTGTTTGTAATAATGTAGAGC  
ACAATGGAATTATGCTGGAAGTCTCAAATAATATTTTTTCTATTTTATACTCATGGAAGAGATAAGCTAAAGA

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**FIGURE 455C**

GGGGACAATAATGAGAAATGTTGGTGTGCTTTTCTAAGCATTTAAACATAATTGCCAATTGAAACCCTAAATAT  
GTTTACATACCATTAAAGATATGATTCATGTAACAATGTTAAATTAATTATAATGGGATTGGGTTTGTTATCTGTG  
GTAGTATATATCCTAGTGTTCCCTATAGTGAAATAAGTAGGGTTCAGCCAAAGCTTTCTTTGTTTTGTACCTTAAA  
TTGTTTCGATTACGTCATCAAAAGAGATGAAAGGTATGTAGAACAGGTTACCGTGATTACCTTTTTCTTTTGGCTT  
GGATTAATATTCATAGTAGAACTTTATAAAACGTGTTTGTATTGTAGGTGGTGTGTTGTATTATGCTTATGACTAT  
GTATGGTTTGAAAATATTTTCATTATACATGAAATTCAACTTTCCAAATAAAAGTTCTACTTCATGT

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**FIGURE 456**

MEPLLLGRGLIVYLMFLLLKFSKAIEIPSSVQQVPTI IKQSKVQVAFPFDEYFQIECEAKGNPEPTFSWTKDGNP  
FYFTDHRIIPSNNSGTFRIPNEGHI SHFQGKYRCFASNKLG IAMSEEIEFIVPSVPKFPKEKIDPLEVEEGDPIV  
LPCNPPKGLPPLHIYWMNIELEHIEQDERVYMSQKGDLYFANVEEKDSRNDYCCFAAFPRLRITIVQKMPMKLTVN  
SLKHANDSSSTEIGSKANSIKQRKPKLLLPPTESGSESSITILKGEILLLECFAEGLPTPQVDWNKIGGDLPKG  
REAKENYGKTLKIENVSYQDKGNRYCTASNFLGTATHDFHVIVEEPPRWTKKQSAVYSTGSNGILLCEAEGEPQ  
PTIKWRVNGSPVDNHPFAGDVVFPREISFTNLQPNHTAVYQCEASNVTGHTILANANIDVVDVRPLIQTKDGENYA  
TVVGYS AFLHCEFFASPEAVVSWQKVEEVKPLEGRRYHIYENGLTQINRTTEEDAGSYSCWVENAIGKTAVTANL  
DIRNATKLRVSPKNPRIPKLHMLELHCESKCDSHLKHSLKLSWSKDGEAFEINGTEDGRIIIDGANLTISNVTLE  
DQGIYCCSAHTALDSAADITQVTVLDVDPDENLHLSEQRNRSVRLTWEAGADHNSNISEYIVEFEGNKKEEGRW  
EELTRVQGGKTTVILPLAPFVRYQFRVIAVNEVGRSQPSQPSDHHTPPAAPDRNPQNIRVQASQPKEMI IKWEP  
LKSMEQNGPGLEYRVTWKPGAPVEWEEETVTNHTLRVMTPAVYAPYDVKVQAINQLGSGPDPQSVTLYSGEDYP  
DTAPVIHGVDVINSTLVKVTWSTVPKDRVHGRLKGYQINWWKTKSLDGRTHPKEVNILRFSGQRNSGMVPSLDA  
FSEFHLTVLAYNSKGAGPESEPYIFQTPEGVPEQPTFLKVIKVDKDTATLSWGLPKKLNGNLTGYLLQYQIINDT  
YEIGELNDINITTPSKPSWHLNLTNATTKYKFLRACTSQGCGKPITEESSTLGEKSGKIGKISGVNLTQKTHPV  
EVFEPGAEHIVRLMTKNWGDND SIFQDVIETRGREYAGLYDDISTQGWFIGLMCAIALLTLLLLTVCFVKRNRGG  
KYSVKEKEDLHPDPEIQSVKDET FGEYSDSDEKPLKGSRLSLNRDMQPTESADSLVEYGEGDHGLFSEDGSFIGA  
YAGSKEKGSVESNGSSTATFPLRA

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**FIGURE 457**

GGGCAGGAAGACGGCGCTGCCCCGAGGAGCGGGGCGGGCGGGCGCGGGGGAGCGGGCGGGCGGGCGGGAGCCAG  
GCCCCGGGCGGGGGCGGGGGCGGGCGGGGCCAGAAGAGGCGGGCGGGCCGCGCTCCGGCCGGTCTGCGGCGTTGGCCT  
TGGCTTTGGCTTTGGCGGGCGGGGTGGAGAAGATGCTGTCAGTCCCTGGCCGGCAGCTCGTGCGTGCGCCTGGTGG  
AGCGGCACCGCTCGGCCTGGTGCTTCGGCTTCCTGGTGCTGGGCTACTTGCTCTACCTGGTCTTCGGCGCAGTGG  
TCTTCTCCTCGGTGGAGCTGCCCTATGAGGACCTGCTGCGCCAGGAGCTGCGCAAGCTGAAGCGACGCTTCTTGG  
AGGAGCACGAGTGCTGTCTGAGCAGCAGCTGGAGCAGTTCTGGGCCGGGTGCTGGAGGCCAGCAACTACGGCG  
TGTCGGTGCTCAGCAACGCCTCGGGCAACTGGAAGTGGGACTTCACCTCCGCGCTCTTCTTCGCCAGCACCGTGC  
TCTCCACCACAGGTTATGGCCACACCGTGCCCTTGTCAGATGGAGGTAAGGCCTTCTGCATCATCTACTCCGTCA  
TTGGCATTCCCTTCACCTCCTGTTCCCTGACGGCTGTGGTCCAGCGCATCACCGTGACGTCACCCGAGGCCGG  
TCCTCTACTTCCACATCCGCTGGGGCTTCTCCAAGCAGGTGGTGGCCATCGTCCATGCCGTGCTCCTTGGGTTTG  
TCACTGTGCTCCTGCTTCTTCTTCATCCCGCCGCTGTCTTCTCAGTCTGGAGGATGACTGGAAGTTCCTGGAAT  
CCTTTTATTTTTGTTTTATTTCCCTGAGCACCATTGGCCTGGGGGATTATGTGCTGGGGAAGGCTACAATCAAA  
AATTGAGAGAGCTCTATAAGATTGGGATCACGTGTTACCTGCTACTTGGCCTTATTGCCATGTTGGTAGTTCTGG  
AAACCTTCTGTGAAGTCCATGAGCTGAAAAAATTCAGAAAAATGTTCTATGTGAAGAAGGACAAGGACGAGGATC  
AGGTGCACATCATAGAGCATGACCAACTGTCCTTCTCCTCGATCACAGACCAGGCAGCTGGCATGAAAGAGGACC  
AGAAGCAAAATGAGCCTTTTGTGGCCACCCAGTCATCTGCCTGCGTGGATGGCCCTGCAAACCATTGAGCGTAGG  
ATTTGTTGCATTATGCTAGAGCACCAGGGTCAGGGTGCAAGGAAGAGGCTTAAGTATGTTTATTTATCAGAAT  
GCAAAAGCGAAAATTATGTCACTTTAAGAAATAGCTACTGTTTGCAATGTCTTATTAACAAAAACAACAAAAAAGA  
CACATGGAACAAAGAAGCTGTGACCCAGCAGGATGTCTAATATGTGAGGAAATGAGATGTCCACCTAAATTTCA  
TATGTGACAAAATTATCTCGACCTTACATAGGAGGAGAATACTTGAAGCAGTATGCTGCTGTGGTTAGAAGCAGA  
TTTTTATACTTTTAACTGGAACTTTGGGGTTTGCATTTAGATCATTTAGCTGATGGCTAAATAGCAAAATTTATA  
TTTAGAAGCAAAAAAAAAAAGCATAGAGATGTGTTTTATAAATAGGTTTATGTGTACTGGTTTGCATGTACCCAC  
CCAAAATGATTATTTTGGAGAATCTAAGTCAAACCTCACTATTTATAATGCATAGGTAACCATTAACCTATGTACA  
TATAAAGTATAAATATGTTTATATTCTGTACATATGGTTTAGGTACCAGATCCTAGTGTAGTTCTGAAACTAAG  
ACTATAGATATTTGTTTCTTTTGATTCTCTTTATACTAAAGAATCCAGAGTTGCTACAATAAAATAAGGGGAA  
TAATAAAGCTTGAGAGTGAATAACCAT

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**FIGURE 458**

MLQSLAGSSCVRLVERHRSAWCFGFLVLGYLLYLVFGAVVFSSVELPYEDLLRQELRKLKRRFLEEHECLSEQQL  
EQFLGRVLEASNYGVSVLSNASGNWNWDFTSALFFASTVLSTTGYGHTVPLSDGGKAFCCIYSVIGIPFTLLFLT  
AVVQRITVHVTRRPVLYFHIRWGFSKQVVAIVHAVLLGFVTVSCFFFIPAAVFSVLEDDWNFLESFYFCFISLST  
IGLDYVPGEGYNQKFRELYKIGITCYLLGLIAMLVLETFCELHELKKFRKMFYVKKDKDEDQVHII EHDQLS  
FSSITDQAAGMKEDQKQNEPFVATQSSACVDGPANH

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**FIGURE 459**

GCAGAGCACCGCGCCTTAGCCGCGAAGTTCTAGTTCTTGCTGCCGGTCCTAACGTCCCGCAGTCTTCGCCAGCCA  
GCCGTCCCGCATGCGCGTTTGGGCGGCGTGGAGCCTGCTGCCATGAAGTCAGCGAGAGCTAAGACACCCCGGAAA  
CCTACCGTGAAAAAGGGTCCCAAACGAACCTTAAAGACCCAGTTGGGGTATACTGTAGGGTGCGCCACTGGGC  
TTTCTGATCAAGAGTGTTCATAGAAAGTGATCAATAATAACAAGTATTTGGCACTCACACCACCCAGAAG  
CTCAACCGAAATGGAGACTATAAGGAGACTCAGTATTCATTTAAACAAGTATTTGGCACTCACACCACCCAGAAG  
GAACTCTTTGATGTTGTGGCTAATCCCTTGGTCAATGACCTCATTTCATGGCAAAAATGGTCTTCTTTTACATAT  
GGTGTGACGGGAAGTGGAAAACTCACACAATGACTGGTCTCCAGGGGAAGGAGGGCTGCTTCTCGTTGTTTG  
GACATGATCTTTAACAGTATAGGGTCATTTCAAGCTAAACGATATGTTTTCAAATCTAATGATAGGAATAGTATG  
GATATACAGTGTGAGGTTGATGCCTTATTAGAAGCTCAGAAAAGAGAAGCTATGCCCAATCCAAAGACTTCTTCT  
AGCAAACGACAAGTAGATCCAGAGTTTGCAGATATGATAACTGTACAAGAATTCTGCAAAGCAGAAGAGGTTGAT  
GAAGATAGTGTCTATGGTGTATTTGTCTCTTATATTGAAATATATAATAATTACATATATGATCTATTGGAAGAG  
GTGCCGTTTGATCCCATAAAACCCAAACCTCCACAATCTAAATTGCTTCGTGAAGATAAGAACCATAACATGTAT  
GTTGCAGGATGTACAGAAGTTGAAGTGAAATCTACTGAGGAGGCTTTTGAAGTTTTCTGGAGAGGCCAGAAAAAG  
AGACGTATTGCTAATACCCATTTGAATCGTGAGTCCAGCCGTTCCCATAGCGTGTTCACATTAAATTAGTTCAG  
GCTCCCTTGGATGCAGATGGAGACAATGTCTTACAGGAAAAAGAACAAATCACTATAAGTCAGTTGTCTTGGTA  
GATCTTGCTGGAAGTGAAAGAATAACCGGACCAGAGCAGAAGGGAACAGATTACGTGAAGCTGGTAATATTAAT  
CAGTCACTAATGACGCTAAGAACATGTATGGATGTCTTAAGAGAGAACCAAATGTATGGAAGTAAACAAGATGGTT  
CCATATCGAGATTCAAAGTTAACCCATCTGTTCAGAACTACTTTGATGGGGAAGGAAAAGTGCAGGATGATCGTG  
TGTGTGAACCCCAAGGCTGAAGATTATGAAGAAAAGTGAAGTCAAGTCATGAGATTTGCGGAAGTGACTCAAGAAGTT  
GAAGTAGCAAGACCTGTAGACAAGGCAATATGTGGTTTAAACGCTGGGAGGAGATACAGAAACCAGCCTCGAGGT  
CCAGTTGGAAATGAACCATTGGTTACTGACGTGGTTTTGCAGAGTTTTCCACCTTTGCCGTCATGCGAAATTTTG  
GATATCAACGATGAGCAGACACTTCCAAGGCTGATTGAAGCCTTAGAGAAACGACATAACTTACGACAAATGATG  
ATTGATGAGTTTAAACAAACAATCTAATGCTTTTAAAGCTTTGTTACAAGAATTTGACAATGCTGTTTTAAGTAAA  
GAAAACCACATGCAAGGGAACTAAATGAAAAGGAGAAGATGATCTCAGGACAGAAATTGGAATAGAACGACTG  
GAAAAGAAAAACAAAACCTTTAGAATATAAGATTGAGATTTTAGAGAAAACACTACTATCTATGAGGAAGATAAA  
CGCAATTTGCAACAGGAACCTTGAAGTCAAGAACAGAACTTCAGCGACAGTTTTCTGACAAACGCAGATTAGAA  
GCCAGGTTGCAAGGCATGGTGACAGAAACGACAATGAAGTGGGAGAAAAGATGTGAGCGTAGAGTGGCAGCCAAA  
CAGCTGGAGATGCAGAATAAACTCTGGGTTAAAGATGAAAAGCTGAAACAAGTGAAGGCTATTGTTACTGAACCT  
AAAAGTGAAGCCAGAGAGACCTCTCGGGAGCGAGATCGAGAAAAAGTACTCAAAGATCTGTTTCTCCATCA  
CCTGTGCCTTTACTCTTTCAACCTGATCAGAACGCACCACCAATTCGTCTCCGACACAGACGATCAGCTCTGCA  
GGAGACAGATGGGTAGATCATAAGCCCGCCTCTAACATGCAAACTGAAACAGTCATGCAGCCACATGTCCCTCAT  
GCCATCACAGTATCTGTTGCAATGAAAAGGCACTAGCTAAGTGTGAGAAGTACATGCTGACCCACCAGGAACCTA  
GCCTCCGATGGGGAGATTGAAACTAACTAATTAAGGGTGTATTTATAAAACAAGGGGTGGTGACAATCTGTT  
CAGTTTACTGATATTGAGACTTTAAAGCAAGAATCACCAAATGGTAGTCGAAAACGAAGATCTTCCACAGTAGCA  
CCTGCCCAACCAGATGGTGCAGAGTCTGAATGGACCGATGTAGAAACAAGGTGTTCTGTGGCTGTGGAGATGAGA  
GCAGGATCCCAGCTGGGACCTGGATATCAGCATCACGCACAACCAAGCGCAAAAAGCCATGAAGTACAGTCCC  
AGTACTGAAAGAACATTTTCATTTGTGTGGATGATTTCTCGAAAGCCATGCCAGAAGCAGTCTTCCAGGTCATCT  
TGTAAGAACTCCAGCTTTGTTGAAAATCACGGACCTCAGCTACATCATACTGACCCAGAGCAAAGCTTTCCCTA  
TGGTTCCAAAGACAAGTAGTATTCAACAAACCTTGTATAGTATATGTTTTGCCATATTTAATATTAATAGCAGAG  
GAAGACTCCTTTTTTTCATCACTGTATGAATTTTTTATAATGTTTTTTAAATATATTTTCATGTATACTTATAAA  
CTAATTCACACAAGTGTGTTGCTTAGATGATTAAGGAAGACTATATCTAGATCATGTCTGATTTTTTATTGTGAC  
TTCTCCAGCCCTGGTCTGAATTTCTTAAGGTTTTATAACAAATGCTGCTATTTATTAGCTGCAAGAATGCACCTT  
TAGAACTATTTGACAATTCAGACTTTCAAAATAAGATGTAAATGACTGGCCAATAATAACCATTTTAGGAAGGT  
GTTTTGAATTTCTGTATGTATATTTACTTTCTGACATTTAGATATGCCAAAAGAATTAATAATCAAAAGCACTAA  
GAAATAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 460**

MKSARAKTPRKPTVKKGSQTNLKDPVGVYCRVRPLGFPDQECCEVINNTTVQLHTPEGYRLNRNGDYKETQYSF  
KQVFGTHTTQKELFDVVANPLVNDLIHGKNGLLFTYGVGTGSGKTHMTGSPGEGGLLPRCLDMIFNSIGSFQAKR  
YVFKSNDNRNSMDIQCEVDALLERQKREAMPNPKTSSSKRQVDPEFADMITVQEFCKAEVDEDSVYGVFVSYIEI  
YNNYIYDLLEEVFFDPIKPKPPQSKLLREDKNHNMYVAGCTEVEVKSTEEAFEVFWRGQKKRRIANTHLNRESSR  
SHSVFNIKLVQAPLDADGDNVLQEKEQITISQLSLVDLAGSERTNRTAEGNRLREAGNINQSLMTLRTCMDVLR  
ENQMYGTNKMVPYRDSKLTHLFKNYFDGEGKVRMIVCVNPKAEDYEENLQVMRFAEVTQEVEVARPVDKAICGLT  
PGRRYRNQPRGPVGNEPLVTDVVLQSFPPLPSCEILDINDEQTLPRLIEALEKRHNLRQMMIDEFNKQSNAFKAL  
LQEFDNAVLSENHMQGKLNEKEKMISSGQKLEIERLEKKNKTLEYKIEILEKTTTIYEEDKRNLOQLELETQNQKL  
QRQFSDKRRLEARLQGMVTETTMKWEKECERRVAAKQLEMQNKLWVKDEKLKQLKAIVTEPKTEKPERPSRERDR  
EKVTQRSVSPSPVPLSSNYIAQISNGQQLMSQPQLHRRSNSCSSISVASCISEWEQKIPTYNTPLKVTSIARRRQ  
QEPGQSKTCIVSDRRRGMYWTEGREVVP TFRNEIEIEEDHCGRLLFQPDQNAPP IRLRHRRSR SAGDRWVDHKPA  
SNMQTETVMQPHVPHAITVSVANEKALAKCEKYMLTHQELASDGEIETKLIKGDYKTRGGGQSVQFTDIETLKQ  
ESPNGSRKRRSSTVAPAQPDGAESEWTDVETRCSVAVEMRAGSQLGPGYQHHAQPKRKKP

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**FIGURE 461**

GTCTAAACGGGAACAGCCCTGGCTGAGGGAGCTGCAGCGCAGCAGAGTATCTGACGGCGCCAGGTTGCGTAGGTG  
CGGCACGAGGAGTTTTCCCGGCAGCGAGGAGGTCCTGAGCAGCATGCCCCGGAGGAGCGCCTTCCCTGCCGCCGC  
GCTCTGGCTCTGGAGCATCCTCCTGTGCCTGTGCGACTGCGGGCGGAGGCCGGGCCGCGCAGGAGGAGAGCCT  
GTACCTATGGATCGATGCTCACCAGGCAAGAGTACTCATAGGATTTGAAGAAGATATCCTGATTGTTTCAGAGGG  
GAAAATGGCACCTTTTACACATGATTTTCAGAAAAGCGCAACAGAGAATGCCAGCTATTCTGTCAATATCCATTC  
CATGAATTTTACCTGGCAAGCTGCAGGGCAGGCAGAATACTTCTATGAATTCCTGTCTTGGCGCTCCCTGGATAA  
AGGCATCATGGCAGATCCAACCGTCAATGTCCCTCTGCTGGGAACAGTGCCTCACAAGGCATCAGTTGTTCAAGT  
TGGTTTCCCATGTCTTGGAAAACAGGATGGGGTGGCAGCATTTGAAGTGGATGTGATTGTTATGAATTCGAAGG  
CAACACCATTCTCCAAACACCTCAAAATGCTATCTTCTTTAAACATGTCTACAAGCTGAGTGCCCGAGGCGGGTG  
CCGAAATGGAGGCTTTTGTAAAGACGCATCTGCGAGTGTCTGATGGGTTCCACGGACCTCACTGTGAGAA  
AGCCCTTTGTACCCACGATGTATGAATGGTGGACTTTGTGTGACTCCTGGTTTCTGCATCTGCCACCTGGATT  
CTATGGAGTGAAGTGTGACAAAGCAAAGTGTCAACCACCTGCTTTAATGGAGGGACCTGTTTCTACCCTGGAAA  
ATGTATTTGCCCTCCAGGACTAGAGGGAGAGCAGTGTGAAATCAGCAAATGCCACAACCCTGTGAAATGGAGG  
TAAATGCATTGGTAAAAGCAAATGTAAGTGTTCCAAAGGTTACCAGGGAGACCTCTGTTCAAAGCCTGTCTGCGA  
GCCTGGCTGTGGTGCACATGGAACCTGCCATGAACCCAACAAATGCCAATGTCAAGAAGGTTGGCATGGAAGACA  
CTGCAATAAAAGGTACGAAGCCAGCCTCATACATGCCCTGAGGCCAGCAGGCGCCAGCTCAGGCAGCACACGCC  
TTCATTAAAAAGGCCGAGGAGCGGCGGGATCCACCTGAATCCAATTACATCTGGTGAAGTCCGACATCTGAAAC  
GTTTTAAGTTACACCAAGTTCATAGCCTTTGTTAACCTTTCATGTGTTGAATGTTCAAATAATGTTTATTACACT  
TAAGAATACTGGCCTGAATTTTATTAGCTTCATTATAAATCACTGAGCTGATATTTACTCTTCTTTTAAAGTTTT  
CTAAGTACGCTCTGTAGCATGATGGTATAGATTTTCTTGTTCAGTGCTTTGGGACAGATTTTATATTATGTCAAT  
TGATCAGGTTAAATTTTTCAGTGTGTAGTTGGCAGATATTTCAAATTTACAATGCATTTATGGTGTCTGGGGGC  
AGGGGAACATCAGAAAGGTTAAATTTGGGCAAAAATGCGTAAGTCACAAGAATTTGGATGGTGCAGTTAATGTTGA  
AGTTACAGCATTTTCAGATTTTATTGTGAGATATTTAGATGTTTGTACATTTTAAAAAATTGCTCTTAATTTTAA  
AACTCTCAATACAATATATTTTGACCTTACCATTATTCCAGAGATTCAGTATTAATAAAAAAAAAAATTACACTG  
TGGTAGTGGCATTTAAACAATATAATATATTCTAAACACAATGAAATAGGGAATATAATGTATGAAGTCTTTTGCA  
TTGGCTTGAAGCAATATAATATATTGTAAACAAAACACAGCTCTTACCTAATAAACATTTTATACTGTTTGTATG  
TATAAAATAAAGGTGCTGCTTTAGTTTTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 462**

MARRSAFPAAALWLWSILLCLLALRAEAGPPQEESESLYLWIDAHQARVLIGFEEDILIVSEGKMAPFTHDFRKAQQ  
RMPAIPVNIHSMNFTWQAAGQAEYFYEFSLRSLDKGIMADPTVNVPLLGTVPHKASVVQVGFPCLGKQDGVAAF  
EVDVIVMNSEGNTILQTPQNAIFFKTCLQAECPGGCRNGGFCNERRICECPDGFHGHCEKALCTPRCMNGGLCV  
TPGFCICPPGFYGVNCDKANCSTTCFNGGTCFYPGKCICPPGLEGEQCEISKCPQPCRNGGKCIGKSKCKCSKGY  
QGDLCSPVCEPGCGAHGTCHEPNKCQCQEGWHGRHCNKRYEASLIHALRPAGAQLRQHTPSLKKAEEERRDPPE  
NYIW

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**FIGURE 463**

GAATTCCTCCGCGCTGGGGGTGCGCATGAXCATTCGCGXXTCCCTCTXCGGCCCGXGGGXCTGGGAXXXXCACAGX  
CXTXCTXCXXGGAACCTCACGAAXCXGAXCTTTTGGGTTCXCGCCCCGCCCGCCCCGCCCGCCCCGCCGGCGG  
CGGAGGCAGCGAGCGCGAGAGCCAGCGGAGTCGCTGGGAGCCTGAGGCACCGAGACACAAAGGCAGGCGGGATG  
CGGGAGCAGGCAAAGGGAAAGCGAAAGCCGCGCGCCCCGGCCGGTGACTGGGTGAAGGCGCCGCGCAGCTTTCCCG  
ACGCCGGCTGTACCGGGACCTCCTGGTTCGAGCCTGGCGCGCCGAGCCATGGCCATCGCTCACCTGGCCACGGAG  
TACGTGTTCTCGGATTTCTTGCTGAAGGAGCCCCACGGAGCCCAAGTTCAAGGGGCTGCGACTGGAGCTGGCTGTG  
GACAAGATGGTCACGTGCATTGCGGTGGGGCTGCCCTGCTGCTCATCTCGCTGGCCTTCGCGCAGGAGATCTCG  
ATTGGTACACAGATAAGCTGTTTTCTCTCCAAGTTCTTTCTCTGCGTCAGGCTGCCTTTGTGGATTTCATATTGC  
TGGGCGGCTGTTTACGAGAAGAACTCACTGCAGAGCGAGTCTGGAACCTCCCACTGTGGCTGCATAAGTTTTTC  
CCCTACATCCTGCTGCTCTTTGCGATCCTCCTGTACCTGCCCGCGTGTCTGGCGTTTCGAGCTGCTCCTCAT  
ATTTGCTCAGACTTGAAGTTTATCATGGAAGAACTTGACAAAGTTTACAACCGTGCAATTAAGGCTGCAAAGAGT  
GCGCGTGACCTTGACATGAGAGATGGAGCCTGCTCAGTTCAGGTGTTACCGAGAACTTAGGGCAAAGTTTGTGG  
GAGGTATCTGAAAGCCACTTCAAGTACCCAATTGTGGAGCAGTACTTGAAGACAAAGAAAAATTCTAATAATTTA  
ATCATCAAGTACATTAGCTGCCGCTGCTGACACTCATCATTATACTGTTAGCGTGTATCTACCTGGGCTATTAC  
TTCAGCCTCTCCTCACTCTCAGACGAGTTTGTGTGCAGCATCAAATCAGGGATCCTGAGAAACGACAGCACCGTG  
CCCGATCAGTTTCAGTGCAAACCTCATTGCCGTGGGCATCTTCCAGTTGCTCAGTGTCAATTAACCTTGTGGTTTAT  
GTCTGCTGGCTCCCGTGGTTGTCTACACGCTGTTTGTTCATTCCGACAGAAGACAGATGTTCTCAAAGTGATC  
GAAATCCTCCCCACTTTTGATGTTCTGCATTTCAAATCTGAAGGGTACAACGATTTGAGCCTCTACAATCTCTTC  
TTGGAGGAAAAATATAAGTGAGGTCAAGTCATACAAGTGTCTTAAGGTACTGGAGAATATTAAGAGCAGTGGTCAG  
GGGATCGACCAATGCTACTCCTGACAAACCTTGGCATGATCAAGATGGATGTTGTTGATGGCAAACTCCCATG  
TCTGCAGAGATGAGAGAGGAGCAGGGGAACAGACGGCAGAGCTCCAAGACAGTGAAACTAAAGCAAATAATGGA  
GAGAAGAATGCCCGACAGAGACTTCTGGATTCTTCTTGCTGATGATTTTTTTCTTGAGCTGTAAATCTGTGACT  
TCTGCGACATGGGATTTAATTTGGCTAAAGCACCCCTGTTGGTTTTACAGCTGGTTTGCAATAAATGGTTCTTGG  
TGGAGATACTGAGCATGTCTTATTGAGTCCCTAATGGAAATGGTGATCAACAAAAGGTTATGGAAGAATGGTTTA  
TGAACCTCCCATAGGAAGCACCTGAGAGATAGTAACTGCAGCAAGTAACATATGTGTAAAGTCCTCATCAAATGA  
AAAGCAGAAAAGACAAAGAACAATTAGTCAAGAGCAGTAGCCCTGTCAGAGCCTCGGAGCAATACCTTTCTGTACC  
CGTGGTGAGACAAGACCCAGAGCTACTGGAAAACAAGCACTTTGGAAGATTTGTTTTGTTTTCATGGAATAATAA  
TATGTCAGGATATAATTTAACGTGAGTTTXXTTATGTGCCCTTAAAGACTGTTAGACAAGAAAAGCATTCACTGGC  
TAATAATCCATAGGTCGACCTATGTCCTAAGTTAGGTGTAAGGTCCGATGCCTTGGCCACACTCGAGCTCTCTT  
TACATTGTTAGTTGTCAACCTTGGCTGATGGAAATCCCGTAACCACTATTTGTTGCXCTGTGCCTTGAAGGGCAG  
CAGGCCCAAGTGCTGCTCTGACTGAAAACCTGAGTTAACAAGACGAAATCTAAAGGATATTCACAGTGACTTCAAT  
TCAGGAAGAATGCTTCCAAAAGAGCCAGTGGGGAAATCTGACATCACAGAAGACATTAATTCAGTCACTTTCAA  
AGAGTTTGTCTACAGGCGGTTTCTCTGTTATCAAAGGCATTTGAAATAGGATTTTACTTAAACAATAATGGAACA  
CAGGAGTATTTAAAGTGAAGAACACTTTGCCTGAATGTGATCAGGGCACATAAGTGACATTGGCGTGCTTCATAT  
GGCGTGCTTGGAGCCAGAAAACTTAGCGGTTTATTTGTTTATATTTAAGCACAGCTTTAAAAAATTCATTATC  
GTTTATTCAGTGTCCGAATTGAGGCCATTTGGGAAGAAAATTCTAGCACTGGTGGAGAATTATAGAATAAAGATT  
ATAAATGGTTGGATAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 464**

MAIAHLATEYVFSDFLLKEPTFKFKGLRLELAVDKMVTCTIAVGLPLLLISLAFQEI SIGTQISCFSPSSFSWR  
QAAFDVSYCWA AVQQKNSLQSESGNLPLWLHKFFPYILLFALLYLPLFWRF AAAPHICSDLKFIMEELDKVY  
NRAIKAAKSARDLDMRDGACSVPGVTENLGQSLWEVSESHFKYPIVEQYLKTKKNSNNLI IKYISCRLLTLIIIL  
LACIYLGYYFSLSSLSDEFVCSIKSGILRNDSTVPDQFQCKLIAVGIFQLLSVINLVVYVLLAPVVVYTTFVPFR  
QKTDVLKVYEILPTFDVLHFKSEGYNDLSLYNLFLEENISEVKS YKCLKVLENIKSSGQIDPMLLLTNLGM IKM  
DVVDGKTPMSAEMREEQGNQTAE LQDSETKANNGEKNARQRLDSSC

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**FIGURE 465A**

CAGAAGTCAAATAGTTAAAGCAAATTCTAGATACATGGTAGAGACCAGGAGAAAATATGAATAACTTTCTTCTAA  
ACAAGGAGCTCAGTGGATAAACCATACCTCTAGATTCCCTTGCTTCCATTTTCCCAGAAACAAGATGAGGAAGAGA  
AAGATCAGTGTGTGTCAACAACTTGGGCCTTATTATGCAAGAACCTTTCTTAAAAAATGGAGAATGAAAAGAGAG  
TCCTTAATGGAATGGCTGAATTCATTGCTCCTACTACTTTGTTTGTATATATATCCTCATAGTCATCAAGTAAAT  
GATTTTTCTTCACTGCTTACCATGGACCTGGGACGGGTAGATACATTTAATGAATCCAGATTTTCTGTTGTATAC  
ACACCTGTCACCAACACGACCCAACAGATAATGAATAAAGTAGCCTCTACTCCCTTCTGGCAGGTAAAGAGGTC  
TTGGGACTGCCAGATGAGGAAAGTATTAAAGAATTCACAGCAAATTATCCTGAAGAAATAGTAAGAGTCACCTTT  
ACTAATACATACTCATATCATTGGAAGTTCTTGCTAGGACATGGAATGCCAGCAAAGAAGGAGCACAAGGACCAT  
ACAGCTCATTGTTATGAAACAAATGAAGATGTTTACTGTGAAGTTTCAGTATTTTGAAGGAAGGTTTTGTGGCT  
CTTCAAGCTGCCATTAATGCTGCTATTATAGAAATCACAACAAATCACTCAGTGATGGAGGAGCTGATGTCAGTT  
ACTGGAAAAATATGAAGATGCATTCCCTTCATTGGTCAATCAGGAGTTATAACTGATTTGTACCTTTTTCTTCGC  
ATTATTTCATTTTCTCATTCACTTACTATGCATCTGTAAATGTCACAAGAGAGAGGAAAAGGATGAAGGCCCTTG  
ATGACAATGATGGGTCTTCGGGATTACGCGTTCTGGCTCTCCTGGGGTTTGCTCTATGCTGGTTTCATCTTCATT  
ATGGCCCTTTTTCTTGGCACTTGTTATAAGATCTACCCAGTTTATCATTTTGTCTGGCTTCATGGTAGTCTTCAGC  
CTCTTTCTCCTGTATGGATTATCTTTGGTAGCTTTGGCTTTCTTAATGAGCATCTTGGTAAAGAAATCTTTCCTC  
ACCGCCTGGTCTGTTCCTCCTCACTGTCTTTTGGGGTGTCTGGGGTTCACATCACTGTACAGACACCTTCCT  
GCATCCTTGGAGTGGATTTTAAGCTTGCTTAGTCCCTTTGCCTTCATGCTTGAATGGCCAGCTTTTACACTTG  
GACTATGATTTGAATTCTAATGCATTTCTCATCCATCGGACGGCTCAAATCTCATTGTAGCAACAAATTTTCATG  
TTGGCATTGACACTTGCCTCTATCTGGCATTGGCGATTTACTTTGAAAAAATTTTGCCAAATGAATATGGACAT  
CGACGTCCACCTTTGTTTTCTGAAGTCTCATTTTGGTCTCAAACACAAAAGACTGATCACGTGGCCCTTGAA  
GATGAAATGGATGCCGATCCTTCATTTCATGACTCTTTTGAACAAGCGCCTCCAGAATTCCAAGGGAAAGAAGCC  
ATCAGAATCAGAAATGTTACAAAAGAATATAAAGGAAAGCCTGATAAAATAGAAGCCTTGAAAGATCTGGTATTT  
GACATTTACGAAGGCCAAATCACTGCAATACTTGGTCACAGTGGAGCTGGAAAGTCAACACTGCTAAACATTCTT  
AGTGGGTGTCTGTTCACCAAAAGGTTTCAGTCACCATCTATAACAATAAGCTTTCAGAAATGGCTGACCTAGAA  
AATCTCAGCAAGCTGACCGGAGTTTGTCCACAATCCAATGTGCAATTTGACTTCCTCACTGTAAGAGAAAACCTC  
AGACTCTTTGCTAAAATAAAAGGGATTCTGCCACAAGAAGTGGATAAAGAGATTTTCTGTTGGATGAACCAACT  
GCTGGATTGGATCCCTTTTCAAGACACCAAGTATGGAACCTTCTGAAAGAACGCAAAACAGACCGCGTGATCCTC  
TTCAGTACCCAGTTCATGGATGAGGCCGACATCCTGGCGGACAGGAAAGTATTCTCTCCCAAGGGAAGCTAAAG  
TGCGCGGGCTCTTCTTTGTTTCTAAAGAAGAAATGGGGGATTGGATATCACTTAAGCTTGCAATTAAATGAAATA  
TGTGTTGAGGAAAAACATAACATCACTTGTTAAACAGCACATCCCTGATGCCAAATTATCAGCCAAAAGCGAAGGA  
AAACTTATTTATACATTACCCTTAGAAAGAACAATAAATTTCCAGAATTTTACAAGGATCTTGATAGCTATCCT  
GACCTAGGAATTGAGAATTATGGTGTTCATGACAACCTTTGAATGAAGTATTCCTGAAGCTAGAAGGAAAATCT  
ACAATTAATGAATCGGACATTGCTATTTTGGGAGAAGTACAAGCGGAAAAAGCTGACGACACTGAAAGGCTTGTT  
GAGATGGAACAAGTCTCTTCACTTAACAAGATGAGAAAGACAATAGGTGGTGTGGCTCTCTGGCGACAGCAA  
ATCTGCGCAATTGCAAGGGTTCGCTTGTTAAAGTTAAAGCATGAAAGAAAAGCTCTTTTAGCACTGCTATTAATT  
CTAATGGCTGGATTTTGCCCTCTTCTTGTTGAGTATACCATGGTGAAATATATCAAAAACAGTTACACCTGGGAA  
CTTTCTCCTCATTGTATTTCCTTGCTCCTGGACAACAACCACATGACCCTCTCACTCAACTACTGATCATCAAT  
AAAACAGGGGCAAGCATTGATGACTTTATACAGTCTGTGGAGCACCAGAACATAGCTTTAGAAGTGGATGCATTT  
GGAAGTAGAAATGGCACAGATGACCCATCTTATAATGGAGCCATCACAGTGTGTTGTAATGAAAAGAATTACAGC  
TTTTCGTTAGCATGCAATGCCAAAAGATTGAATTGCTTCCAGTTCTTATGGACATTGTTAGTAATGGGCTACTT  
GGAATGGTTAAACCATCAGTACATATCCGAAGTGAAGAAGTACATTTTTGGAGAATGGACAGGACAATCCAATC  
GATGATTATAAGAACAGAGCTCGGTCCCAGCTACGGATTTCCGGACTCTCCCTTCTGCTTACTGGTTTGGGCAG  
GCGCTGGTGGATGTTTCCCTGTACTTCTTGGTCTTCGTTTTTATATATTTAATGAGCTACATTTCAAACCTCGAA  
GACATGCTACTTACAATAATTCATATTATTCAAATCCCATGTGCTGTTGGTTATTCCTTTTCCCTCATCTTCATG  
ACATACGTGATTTCTTCATCTTTTCGCAAGGGGAGAAAAAATAGTGGCATTGTTGTCATTTTGTCTATGTTGTC  
ACTGTATTCTCTGTGGCTGGATTTGCGTTTCAGTATCTTCGAAAGTGATATTCCATTTATCTTCACTTTTTTAATA  
CCACCTGCCACAATGATTGGCTGTTTGTCTTATCTTCTCATCTTCTCTTTTCTCTCTTTTCTGAAGAACGA

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**FIGURE 465B**

ATGGATGTACAGCCATTTCTGGTATTCCTAATTCCTTTCCTTCATTTTATCATTTTTCTTTTTACTCTTCGATGT  
CTGGAATGGAAGTTTGGAAAGAAATCAATGAGAAAGGATCCTTTCTTTAGAAATTTCTCCAAGAAGTAGTGATGTG  
TGTCAAAATCCAGAAGAACCAGAAGGAGAGGATGAAGATGTTGAGATGGAAAGAGTGAGAACAGCAAATGCCTTG  
AATTCTACTAATTTTGATGAGAAGCCAGTCATCATTGCCAGCTGTCTACGCAAGGAGTATGCAGGGAAGAGGAAA  
GGCTGTTTTTCCAAGAGGAAGAATAAGATAGCCACGAGAAATGTCTCCTTCTGTGTTAGAAAAGGTGAAGTTTTA  
GGATTATTAGGACACAATGGAGCTGGTAAAAGCACATCCATTAAGGTGATAACTGGAGACACAAAACCAACTGCT  
GGACAAGTGCTACTGAAAGGGAGCGGTGGAGGGGATGCCCTGGAGTTCCTGGGGTACTGCCCTCAGGAGAACCGG  
CTGTGGCCCAACCTGACAGTGAGGCAGCACCTGGAGGTGTACGCCGCCGTGAAAGGGCTGAGGAAAGGGGATGCT  
GAGGTTGCCATCACACGGTTAGTGGATGCGCTCAAGCTGCAGGACCAGCTGAAGTCTCCGGTGAAGACCTTGTC  
GAGGGAATAAAGAGAAAGCTGTGCTTTGTCTGAGCATACTGGGGAACCCGTGAGTGGTGCTTCTGGATGAGCCG  
TCGACCGGGATGGACCCCGAGGGGCAGCAGCAAATGTGGCAGGCCATCCGGGCCACCTTTAGAAACACGGAAAGG  
GGTGCCCTCCTAACCAACCCACTACATGGCAGAGGCTGAGGCCGTGTGTGACCGAGTGGCCATCATGGTATCTGGG  
AGGTTGAGATGTATCGGTTCCATCCAACACCTGAAAAGCAAATTTGGCAAAGATTACCTGCTGGAGATGAAGGTG  
AAGAACCTGGCACAAGTGGAGCCCCTCCATGCAGAGATCCTGAGGCTTTTCCCCCAGGCTGCTCGGCAGGAAAGG  
TACTCCTCTCTGATGGTTTTATAAGTTGCCAGTGGAAGATGTGCAACCTTTAGCCCAAGCTTTCTTCAAATTAGAG  
AAGGTTAAACAGAGCTTTGACCTAGAGGAGTACAGCCTCTCACAGTCTACCCTGGAGCAGGTTTTCTGGAGCTC  
TCCAAGGAGCAGGAGCTGGGTGATTTTGAGGAGGATTTTGATCCCTCAGTGAAGTGGAAGCTCCTCCCCCAGGAA  
GAGCCTTAAACCCCAAATTTCTGTGTTCTGTTTAAACCCGTGGTTTTTTTTTAAATACATTTATTTTTATAGCAG  
CAATGTTCTATTTTTTAGAACTATATTATAAGTACAGAAATGGTTCTCCGTGTGGTGGGAGGAGGAGGTTTCGGGT  
GCTGGGTAAGTGCCATGTCAGTGTGGACAGAGGCATTTGACTAAGCCAACCTCCTCTCACAGCCTCTGTATCTCT  
GCAGGCCATACTGGTTCCATTGTTCTGTATAATACTGAATAAAATAAATTTACTTTTACATGATCGTATAAGTTTC  
TAGATAAGATAAACAAATTTCTGTTTAAATTTTTTAAATAAAAAATCTTAAACACTTTTTTTCTAACCTAGACTGA  
GAAATTCATGTTTACTTTTTCTAGGTGTATGATACTTTGTAAAGTTGATACTTTCCTAAGAATTTAACATGTCATA  
TTTTTGAAATAGATTTAAGTGTGCTTCTTATTGCTAAAAATACTAAATGTCATGGGTCATAGTATCTGATATCAA  
TATCGTTGATAACATATCCACAGGTAACACCATGATGTAGGCATAAATGGAAAACAAAAACCCTACTATTTCAAA  
TATATTGTACTTTTTTATTTCTGTAAGCCAACCTGTGTGCCATTTTCACTGGACTTTTAAATCTAGACTTTAGTGA  
TGTCTACATTGTAAATGATCTTTTGTGGATATTTGTCACTTGGTTTCAGAAAGTTCACAAATGTAGCAACAGCTC  
ACATGACTGAGTAGGTAGAAAATGTGAAATAAATCTCATATATATAGTTTTG

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**FIGURE 466**

MRKRKISVCQQTWALLCKNFLKKWRMKRESLMEWLNLLLLLLCLYIYPHSHQVNDFFSLLTMDLGRVDTFNESRF  
SVVYTPVTNTTQQIMNKVASTPFLAGKEVLGLPDEESIKEFTANYPEEIVRVTFNTYSYHLKFLLGHGMPAKKE  
HKDHTAHCYETNEDVYCEVSVFWKEGFVALQAAINAAIIEITTNHSMEEELMSVTGKNMKMHSFIGQSGVITDLY  
LFSCIISFSSFIYYASVNVTRERKRMKALMTMMGLRDSAFWLSWGLLYAGFIFIMALFLALVIRSTQFIIILSGFM  
VVFSLFLLYGLSLVALAFLMSILVKKSFLTGLVVFLLTVFWGCLGFTSLYRHLPASLEWILSLLSPFAFMLGMAQ  
LLHLDYDLNSNAFPHPSDGSNLIVATNFMLAFDTCLYLALAIYFEKILPNEYGHRPPLFFLKSSFSWSTQKTDH  
VALEDEMDADPSFHDSFEQAPPEFQGKEAIRIRNVTKEYKGKPKDIEALKDLVFDIYEGQITAILGHSGAGKSTL  
LNILSGLSVPTKGSVTIYNNKLSEADLENLSKLTGVCPQSNVQFDFLTVRNLRFLFAKIKGILPQEVDFKEIFLL  
DEPTAGLDPPSRHQVWNLLKERKTDRIVLFSTQFMDEADILADRKVFLSQGKLKAGSSFLKKKWGIGYHLSLQ  
LNEICVEENITSLVKQHIPDAKLSAKSEGKLIYTLPLERTNKFPELYKDLDSPDLGIENYGVSMITLNEVFLKL  
EGKSTINESDIAILGEVQAEKADDTERLVEMEQLVSSLNKMRKTIGGVALWRQQICAIARVRLKCLKHERKALLA  
LLLILMAGFCPLLVEYTMVKIYQNSYTWELSPHLYFLAPGQQPHDPLTQLLIINKTGASIDDFIQSVEHQNTALE  
VDAFGTRNGTDDPSYNGAITVCCNEKNYSFSLACNAKRLNCFVLMDIVSNGLLGMVKPSVHIRTERSTFLENGQ  
DNPIGFLAYIMFWLVLTSSCPPIYAMSSIDDYKNRARSQLRISGLSPSAYWFGQALVDVSLYFLVFVFIYLMYSYI  
SNFEDMLLTIIHIIQIPCAVGYSFSLIFMTYVISFIFRKGRKNSGIWSFCFYVVTVFSVAGFAFSIFESDIPFIF  
TFLIPPATMIGCLFLSSHLLFSSLFSEERMDVQPFVLVFLIPFLHFIIFLFTLRCLWKFEGKSMRKDPFFRISPR  
SSDVCQNPEEPEGEDEDVQMERVRTANALNSTNFDEKPVIIASCLRKEYAGKRKGCFSKRKNKIATRNVSFVCRK  
GEVLGLLGHNGAGKSTSIVKITGDTKPTAGQVLLKSGGGDALEFLGYCPQENALWPNLTVRQHLEVYAAVKGLR  
KGDAEVAITRLVDALKLQDQLKSPVKTLSEGIKRKLKCFVLSILGNPSVVLLEPSTGMDPEGQQQMWQAIRATFR  
NTERGALLTTHYMAEAEAVCDRVAIMVSGRLRCIGSIQHLKSKFGKDYLLMKVKNLAQVEPLHAEILRLFPQAA  
RQERYSSLMVYKLPVEDVQPLAQAFFKLEKVKQSFDFLEEYLSQSTLEQVFLELSKEQELGDFEEDFDPSVKWKL  
LPQEEP



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**FIGURE 467**

AGGCGGACAAAACCCGATTGTTCTGGGCCCTTTCCTCCCATCGCGCCTGGGCCTGCTCCCCAGCCCCGGGGCAGGGG  
CGGGGGCCAGTGTGGTGACACACGCTGTAGCTGTCTCCCGGCTGGCTGGCTCGCTCTCTCTCTGGGGACACAGAG  
GTCGGCAGGCAGCACACAGAGGGACCTACGGGCAGCTGTTCTTCCCCGACTCAAGAATCCCCGGAGGCCCGGA  
GGCCTGCAGCAGGAGCGGCCATGAAGAAGCTGATGGTGGTGCTGAGTCTGATTGCTGCAGCCTGGGCAGAGGAGC  
AGAATAAGTTGGTGCATGGCGGACCCTGCGACAAGACATCTCACCCCTACCAAGCTGCCCTCTACACCTCGGGCC  
ACTTGCTCTGTGGTGGGGTCTTATCCATCCACTGTGGGTCTCACAGCTGCCACTGCAAAAAACCGAATCTTC  
AGGTCTTCTGGGGAAGCATAACCTTCGGCAAAGGGAGAGTTCCAGGAGCAGAGTTCTGTTGTCCGGGCTGTGA  
TCCACCCCTGACTATGATGCCGCCAGCCATGACCAGGACATCATGCTGTTGCGCCTGGCACGCCCAGCCAACTCT  
CTGAACTCATCCAGCCCCCTTCCCCTGGAGAGGGACTGCTCAGCCAACACCACCAGCTGCCACATCCTGGGCTGGG  
GCAAGACAGCAGATGGTGATTTCCCTGACACCATCCAGTGTGCATACATCCACCTGGTGTCCCGTGAGGAGTGTG  
AGCATGCCTACCCTGGCCAGATCACCCAGAACATGTTGTGTGCTGGGGATGAGAAGTACGGGAAGGATTCTTGCC  
AGGGTGATTCTGGGGGTCCGCTGGTATGTGGAGACCACCTCCGAGGCCTTGTGTCTATGGGGTAACATCCCCCTGTG  
GATCAAAGGAGAAGCCAGGAGTCTACACCAACGTCTGCAGATACACGAACTGGATCCAAAAAACCATTCAGGCCA  
AGTGACCCTGACATGTGACATCTACCTCCCGACCTACCACCCCACTGGCTGGTTCAGAACGTCTCTCACCTAGA  
CCTTGCCCTCCCCCTCCTCTCCTGCCAGCTCTGACCCTGATGCTTAATAAACGCAGCGACGTGAGGGTCTCTGATTC  
TCCCTGGTTTTTACCCCAGCTCCATCCTTGCACTACTGGGGAGGACGTGATGAGTGAGGACTTGGGTCTCGGTCT  
TACCCCCACCACTAAGAGAATACAGGAAAATCCCTTCTAGGCATCTCCTCTCCCCAACCCCTTCCACACGTTTGAT  
TTCTTCTGTCAGAGGCCAGCCACGTGTCTGGAATCCAGCTCCGCTGCTTACTGTGCGGTGTCCCTTGGGATGT  
ACCTTTCTTCACTGCAGATTTCTCACCTGTAAGATGAAGATAAGGATGATACAGTCTCCATAAGGCAGTGGCTGT  
TGGAAGATTTAAGGTTTCACACCTATGACATACATGGAATAGCACCTGGGCCACCATGCACTCAATAAAGAATG  
AATTTTATTATG

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**FIGURE 468**

MKKLMVVLSLIAAAWAEEQNKLVHGGPCDKTSHPYQAALYTSGHLLCGGVLIHPLWVLTAAHCKKPNLQVFLGKH  
NLRQRESSQEQSSVVRAVIHPDYDAASHDQDIMLLRLARPAKLSELIQPLPLERDCSANTTSCHILGWGKTADGD  
FPDTIQCAYIHLVSREECEHAYPGQITQNMLCAGDEKYGKDSCQGDSSGGPLVCGDHLRGLVSWGNI PCGSKEKPG  
VYTNVCRYTNWIKTIQAK

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**FIGURE 469**

GGTACCTCCTGCCAGCACCTCTTGGGTTTGCTGAGAACTCACGGGCTCCAGCTACCTGGCCATGACCACCACATT  
TCTGCAAACCTTCTTCCTCCACCTTTGGGGGTGGCTCAACCCGAGGGGGTTCCCTCCTGGCTGGGGGAGGTGGCTT  
TGGTGGGGGGAGTCTCTCTGGGGGAGGTGGAAGCCGAAGTATCTCAGCTTCTTCTGCTAGGTTTGTCTCTTCAGG  
GTCAGGAGGAGGATATGGGGGTGGCATGAGGGTCTGTGGCTTTGGTGGAGGGGCTGGTAGTGTTTTCGGTGGAGG  
CTTTGGAGGGGGCGTTGGTGGGGGTTTTGGTGGTGGCTTTGGTGGTGGCGATGGTGGTCTCCTCTCTGGCAATGA  
GAAAATTACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTACGTGCCCTGGAGGAGGCCAA  
TGCTGACCTGGAGGTGAAGATCCATGACTGGTACCAGAAGCAGACCCCAGCCAGCCCAGAATGCGACTACAGCCA  
ATACTTCAAGACCATTGAAGAGCTCCGGGACAAGATCATGGCCACCACCATCGACAACCTCCCGGGTCATCCTGGA  
GATCGACAATGCCAGGCTGGCTGCGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGGGCGT  
TGAGGCTGACATCAACGGCTTGCGCCGAGTCCTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGAT  
CGAGGGCCTGAATGAGGAGCTAGCCTACCTGAAGAAGAACCACGAAGAGGAGATGAAGGAGTTCAGCAGCCAGCT  
GGCCGGCCAGGTCAATGTGGAGATGGACGCGAGCACCGGGTGTGGACCTGACCCGTGTGCTGGCAGAGATGAGGGA  
GCAGTACGAGGCCATGGCGGAGAAGAACCGCCGGGATGTCGAGGCCTGGTTCTTCAGCAAGACTGAGGAGCTGAA  
CAAAGAGGTGGCCTCCAACACAGAAATGATCCAGACCAGCAAGACGGAGATCACAGACCTGAGACGCACGATGCA  
GGAGCTGGAGATCGAGCTGCAGTCCCAGCTCAGCATGAAAGCTGGGCTGGAGAACTCACTGGCCGAGACAGAGTG  
CCGCTATGCCACGCAGCTGCAGCAGATCCAGGGGCTCATTGGTGGCCTGGAGGCCAGCTGAGTGAGCTCCGATG  
CGAGATGGAGGCTCAGAACCAGGAGTACAAGATGCTGCTTGACATAAAGACACGGCTGGAGCAGGAGATCGCTAC  
TTACCGCAGCCTGCTCGAGGGCCAGGATGCCAAGATGGCTGGCATTGGCATCAGGGAAGCCTCTTCAGGAGGTGG  
TGGTAGCAGCAGCAATTTCCACATCAATGTAGAAGAGTCAGTGGATGGACAGGTGGTTTCTTCCCAAGAGAGA  
AATCTAAGTGTCTATTGCAGGAGAAACGTCCCTTGCCACTCCCCACTCTCATCAGGCCAAGTGGAGGACTGGCCA  
GAGGGCCTGCACATGCAAACCTCCAGTCCCTGCCTTCAGAGAGCTGAAAAGGGTCCCTCGGTCTTTTATTTCAGGG  
CTTTGCATGCGCTCTATTCCCCCTCTGCCTCTCCCCACCTTCTTTGGAGCAAGGAGATGCAGCTGTATTGTGTAA  
CAAGCTCATTGTACAGTGTCTGTTCATGTAATAAAGAATTACTTTTCCTTTTGCAAAT

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**FIGURE 470**

MTTTFLOTSSSTFGGGSTRGGSLLAGGGGFGGGSLSGGGGSRISISASSARFVSSGSGGGYGGGMRVCGFGGGAGS  
VFGGGFGGGVGGGFGGGFGGGDGGLLSGNEKITMQNLNDRLASYLDKVRAL EEANADLEVKIH DWYQKQTPASPE  
CDYSQYFKTIEELRDKIMATTIDNSRVILEIDNARLAADDFRLKYENELALRQGV EADINGLRRVLD ETLARTD  
LEMQIEGLNEELAYLKKNHEEEMKEFSSQLAGQVNVEMDAAPGVDLTRVLAEMREQYEAMAEKNRRDVEAWFFSK  
TEELNKEVASNTEMIQTSKTEITDLRRTMQELEIELQSQLSMKAGLENSLAETECRYATQLQQIQGLIGGLEAQL  
SELRCEMEAQNQEYKMLLDIKTRLEQEIATYRSLLEGQDAKMAGIGIREASSGGGGSSNFHINVEESVDGQVVS  
SHKREI

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**FIGURE 471**

CGCCAAAGGAAAAGCCCCCTTGGATGAGAGGCAGGCGCTTCAGAGAAGCTAAGAAAAGCACCTCTCCGCGCGCCCC  
ACCTCCTCCGCGCTCGCGCTCCTCCTGAGCAGCGGGCCCAGACTGCGCTCCGGCCGCGGGCCCTCGCCCCGCGGAGC  
CCTCCTACCCCGGCCCCGACGCTCGGCCCCGCGACCTGCCCGGAGCCCTCTCCATGGAGGCAGCCCCGCCCTCCGGC  
TCCTGGAACGGAGCCCTCTGCCGGCTGCTCCTGCTGACCCTCGCGATCTTAATATTTGCCAGTGATGCCTGCAAA  
AATGTGACATTACATGTTCCCTCCAACTAGATGCCGAGAACTTGTGGTAGAGTTAACCTGAAAAGAGTGCTTT  
ACAGCTGCAATCTAATTCATTCAAGTGATCCTGACTTCCAAATTTTGGAGGATGGTTCAGTCTATACAACAAAT  
ACTATTCTATTGTCTCTCGGAGAAGAGAAGTTTTACCATATTACTTTCCAACACTGAGAACCAAGAAAAGAAGAAA  
ATATTTGTCTTTTTTGGAGCATCAAACAAAGTCTAAAGAAAAGACATACTAAAGAAAAAGTTCTAAGGCGCGCC  
AAGAGAAGATGGGCTCCAATTCTTGTTCGATGCTAGAAAACCTCCTTGGGTCTTTTTCCACTTTTCTTCAACAG  
GTTCAATCTGACACGGCCCCAAACTATACCATATACTATTCCATAAGAGGTCTTGGAGTTGACCAAGAACCTCGG  
AATTTATTTTATGTGGAGAGAGACACTGGAACTTGTATTGTACTCGTCTGTAGATCGTGAGCAGTATGAATCT  
TTTGAGATAATTGCCTTTGCAACAACTCCAGATGGGTATACTCCAGAACCTTCCACTGCCCCCTAATAATCAAAATA  
GAGGATGAAAATGATAACTACCCAATTTTTACAGAAGAACTTATACTTTTACAATTTTTTGAAAATTGCAGAGTG  
GGCACTACTGTGGGACAAGTGTGTGCTACTGACAAAGATGAGCCTGACACGATGCACACACGCGCTGAAGTACTCC  
ATCATTGGGCAGGTGCCACCATCACCCACCCTATTTTCTATGCATCCAACCTACAGGCGTGATCACCACAACATCA  
TCTCAGCTAGACAGAGAGTTAATTGACAAGTACCAGTTGAAAATAAAAGTACAAGACATGGATGGTCAGTATTTT  
GGTCTACAGACAACCTTCAACTTGTATCATTAACTTGTATGATGTAAATGACCACTTGCCAACATTTACTCGTACT  
TCTTATGTGACATCAGTGGAAGAAAATACAGTTGATGTGGAAATCTTACGAGTTACTGTTGAGGATAAGGACTTA  
GTGAATACTGCTAACTGGAGAGCTAATTATACCATTTTTAAAGGGCAATGAAAATGGCAATTTTTAAATTTGTAACA  
GATGCCAAAACCAATGAAGGAGTTCTTTGTGTAGTTAAGCCTTTGAATTATGAAGAAAAGCAACAGATGATCTTG  
CAAATTGGTGTAGTTAATGAAGCTCCATTTTCCAGAGAGGCTAGTCCAAGATCAGCCATGAGCACAGCAACAGTT  
ACTGTTAATGTAGAAGATCAGGATGAGGGCCCTGAGTGTAACCCTCCAATACAGACTGTTTCGCATGAAAGAAAAT  
GCAGAAGTGGGAACAACAAGCAATGGATATAAAGCATATGACCCAGAAAACAAGAAGTAGCAGTGGCATAAGGTAT  
AAGAAATTAAGTATCCAACAGGGTGGGTCAACATTGATGAAAATACAGGATCAATCAAAGTTTTTCAAGGCCTG  
GATAGAGAGGCAGAGACCATCAAAAATGGCATATATAATATTACAGTCTTGCATCAGACCAAGGAGGGGAGAACA  
TGACGGGGACACTGGGCATTATACTTCAAGACGTGAATGATAACAGCCCATTTCATACCTAAAAAGACAGTGATC  
ATCTGCAAACCCACCATGTCTATCTGCGGAGATTGTTGCGGTTGATCCTGATGAGCCTATCCATGGCCCCACCCTTT  
GACTTTAGTCTGGAGAGTTCTACTTCAGAAGTACAGAGAATGTGGAGACTGAAAGCAATTAATGATACAGCAGCA  
CGTCTTTCTATCAGAATGATCCTCCATTTGGCTCATATGTAGTACCTATAACAGTGAGAGATAGACTTGGCATG  
TCTAGTGTCACTTCATTGGATGTTACACTGTGTGACTGCATTACCGAAAATGACTGCACACATCGTGTAGATCCA  
AGGATTGGCGGTGGAGGAGTACAACCTTGGAAAGTGGGCCATCCTTGCAATATTGTTGGGCATAGCATTGCTCTTT  
TGCACTCTGTTTACGCTGGTCTGTGGGGCTTCTGGGACGTCTAAACAACCAAAAGTAATTCCTGATGATTTAGCC  
CAGCAGAACCTAATTGTATCAAACACAGAAGCTCCTGGAGATGACAAAGTGATTCTGCGAATGGCTTCACAACC  
CAAACGTGGGCGCTTCTGCTCAGGGAGTTTGTGGCACCGTGGGATCAGGAATCAAAAACGGAGGTGAGGAGACC  
ATCGAAATGGTGAAAGGAGGACACCAGACCTCGGAATCCTGCCGGGGGGCTGGCCACCATCACACCCTGGACTCC  
TGCAGGGGAGGACACACGGAGGTGGACAACCTGCAGATACACTTACTCGGAGTGGCACAGTTTTTACTCAGCCCCGT  
CTTGGTGAAAAAGTGATCTGTGTGAATCAAGATGAAAATCACAAGCATGCCCAAGACTATGTCCTGACATATAAC  
TATGAAGGAAGAGGATCGGTGGCTGGGTCTGTAGGTTGTTGCAGTGAAACGACAAGAAGAAGATGGGCTTGAATTT  
TTGGATAATTTGGAGCCCCAATTTAGGACACTAGCAGAAGCATGCATGAAGAGATGAGTGTGTTCTAATAAGTCT  
CTGAAAGCCAGTGGCTTTATGACTTTTAAAAAAATTACAAACCAAGAATTTTTTAAAGCAGAAGATGCTATTTG  
TGGGGGTTTTTCTCTCATTATTTGGATGGAATCTCTTTGGTCAAATGCACATTTACAGAGAGACACTATAAACAA  
GTACACAAATTTTTCAATTTTTACATATTTTTAAATTACTTATCTTCTATCCAAGGAGGTCTACAGAGAAATTAA  
AGTCTGCCTTATTTGTTACATTTGGGTATAATGACAACAGCCAATTTATAGTGCAATAAAATGTAATTAATTCAA  
GTCCTTATTATAGACTATTTGAAGCACAACTAATGGAAAATTGTAGAGACCTTGCTTTAACATTATCTCCAGTT  
AATTAAGTGTTTATGTGGTGCTTGGAACTGTTGTTTTCTGAACATCTAAAGTGTTAGACTGCATTCTTGCTA  
TTATTTTATTCTTGTAATGTGACTTTTTCACTGTGCAAGGGAGATTTCTAGCCAGGCATTGACTATTACAATTT  
CATT

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**FIGURE 472**

MEAARPSGSWNGALCRLLLLTAILIFASDACKNVTLHVPSKLD AEKLVGRVNLKECF TAANLIHSSDPDFQILE  
DGSVYTTNTILLSSEKRSFTILLSNTENQEKKKIFVFLEHQTKVLKKRHTKEKVLRRAKRRWAPIPCSMLENSLG  
PFPLFLQQVQSDTAQNYTIYYISIRGPGVDQEPRNLFYVERDTGNLYCTRPVDREQYESFEIIAFATTPDGYTPEL  
PLPLIIKIEDENDNYPIFTEETYTFTIFENCRVGTTVGQVCATDKDEPDTMHTRLKYSIIIGQVPPSPTLFSMHPT  
TGVITTTSSQLDRELIDKYQLKIKVQDMDGQYFGLQTTSTCIINIDDVNDHLPFTTRTSYVTSVEENTVDVEILR  
VTVEDKDLVNTANWRANYTILKGNENGNFKI VTDAKTNEGVL CVVKPLNYEEKQOMILOIGVVNEAPFSREASPR  
SAMSTATVTVNVEDQDEGPECNPPIQTVRMKENAEVGTT SNGYKAYDPETRSSSGIRYKKLTDPTGWTIDENTG  
SIKVRSLDREAETIKNGIYNITVLASDQGGRTCTGT LGIILQDVNDNSPFIPKKTVIICKPTMSSAEIVAVDPD  
EPIHGPPFD FSLESSTSEVQRMWRLKAINDTAARLSYQNDPPFGSYVVPITVRDRLGMSSVTS LDVTLCD CITEN  
DCTHRVDPRIGGGGVQLGKWAILAILLGIALLCILFTLVCGASGTSKQPKVIPDDLAQQNLIVSNTEAPGDDKV  
YSANGFTTQTVGASAQGVCGTVGSGIKNGGQETIEMVKGGHQTSESCRGAGHHHTLDSCRGGHTEVDNCRYTYSE  
WHSFTQPRLG EKVYLCNQDENHKHAQDYVLTYNYEGRGSVAGSVGCCSERQEEDGLEFLDNLEPKFRTLAEACMK  
R

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**FIGURE 473**

[illegible]

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**FIGURE 474**

MQSYSLVFLVVYLILPYSSFKENSIFITVN



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**FIGURE 475**

TGCGGGCAGGATTACGCGCGCTGTGACCCGGAGGTCCTCAGGGGGCGAAGCCCCGGCCTAGGCCTCGCGGAGATG  
CCCAGCTGCGGTGCTTGTACTTGCGGCGCGGCGGCCGTCCGGCTCATCACCTCCTCACTCGCCTCCGCGCAGAGA  
GGTATTTCTGGTGGTTCGCATTCATATGTCAGTTTTAGGAAGGCTTGGGACATTTGAAACTCAGATTCTGCAAAGA  
GCTCCTCTTAGATCCTTTACAGAAACACCAGCATACTTTGCCTCAAAAGATGGGATAAGTAAAGATGGTTCTGGA  
GATGGAAATAAGAAATCAGCAAGTGAGGGAAGTAGTAAGAAATCAGGCTCTGGGAATTCTGGGAAAGGTGGAAAC  
CAGCTGCGCTGTCCTAAATGTGGCGACTTGTGCACACATGTAGAGACCTTTGTATCATCCACCCGTTTTGTCAAG  
TGTGAAAAGTGTATCATTTTTTTTTGTTGTGCTATCTGAAGCAGACTCAAAGAAAAGCATAATTAAAGAACCTGAA  
TCAGCAGCAGAAGCTGTAAAATTGGCATTCCAACAGAAACCACCACCTCCCCCTAAGAAGATTTATAACTACCTC  
GACAAGTATGTTGTTGGCCAGTCATTTGCTAAGAAGGTGCTTTCAGTTGCTGTGTACAATCATTATAAGAGAATA  
TATAATAATATCCAGCTAATCTGAGACAGCAAGCAGAGGTTGAGAAGCAGACATCATTAAACCCAAGAGAGTTA  
GAAATAAGAAGACGGGAGGATGAGTACAGATTTACAAAATTGCTTCAGATTGCTGGAATTAGCCCATGGAAT  
GCTTTAGGAGCATCAATGCAGCAACAGGTAAATCAACAAATACCTCAGGAAAAACGAGGAGGTGAAGTATTGGAT  
TCTTCTCATGATGACATAAACTTGAAAAAGTAATATTTTGCTGCTTGGACCAACTGGGTGAGGTAAACTCTG  
CTGGCACAAACCCTAGCTAAATGCCTTGATGTCCCTTTTGCTATCTGTGACTGTACAACCTTTGACTCAGGCTGGA  
TATGTAGGCGAAGATATTGAATCTGTGATTGCAAACTACTCCAAGATGCCAATTATAATGTGGAAGAACACAA  
CAAGGAATTGTCTTTCTGGATGAAGTAGATAAGATTGGCAGTGTGCCAGGCATTCATCAATTACGGGATGTAGGT  
GGAGAAGGCGTTCAGCAAGGCTTATTAAACTACTAGAAGGCACAATAGTCAATGTTCCAGAAAAGAATCCCCGA  
AAGCTCCGTGGAGAAACAGTTCAAGTTGATACAACAAACATCCTGTTTGTGGCATCTGGTGCTTTCAATGGTTTA  
GACAGAATCATCAGCAGGAGGAAAAATGAAAAGTATCTTGGATTGGAACACCATCTAATCTGGGAAAAGGCAGA  
AGGGCTGCAGCTGCTGCAGACCTTGCTAATCGAAGTGGGGAATCGAATACTCACCAAGACATTGAAGAAAAAGAT  
CGGTTATTGCGTCATGTGGAAGCCAGAGATCTGATTGAGTTTGGCATGATTCTTGAGTTTGTGGGACGGTTGCCT  
GTGGTGGTTCCATTGCATAGCCTAGATGAGAAAACACTTGTACAAATATTAAGTACGACCAAGATGCTGTTATT  
CCTCAGTACCAGGCCTTATTAGCATGGATAAGTGTGAACTGAATGTTACTGAGGATGCTTTGAAAGCTATAGCC  
AGATTGGCACTAGAACGAAAAACAGGTGCACGAGGCCTTCGGTCCATAATGGAAAAGCTGTTACTAGAACCAATG  
TTTGAAGTCCCTAATTCTGATATCGTATGTGTGGAGGTTGACAAAGAAGTAGTAGAAGGAAAAAGGAACCAGGA  
TACATCCGGGCTCCAACAAAAGAAATCCTCTGAAGAGGAGTATGACTCTGGAGTTGAAGAAGAAGGATGGCCCCGC  
CAAGCAGATGCTGCAAACAGCTTAAACTGTCATATTGCTGTCTTGTATATACAGCTTTTCCTTCTTTTGTAGGA  
TCATAATTGTCTCTACAGTCTGATATTAAAGGCATTGGATCTATCTTGGATATCATACATGGTCAGAGAAGCCTT  
TAGGAGAAGAATCAGATCATGTATATAATTGTAACATCACATTGATTTTACGGAAGATGTTATATGGACTTTAAT  
GACACAATGTTTAGAGATAAAATGTACATTATTTTGGTTAGTTTTTAAAAAAAATATGCTTTAACAAAATTCT  
TAGGAATTCTTTAAGCAATGCAGGTATTGCGATAACTGTAGATTTTACAATAATGTTACTCTACAAATGGGAAA  
ATAAATTCTTTAAATGAATATTGA

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**FIGURE 476**

MPSCGACTCGAAVRLITSSLASAQRGISGGRIHMSVLGRLGTFETQILQRAPLRSFTETPAYFASKDGISKDGS  
GDGNKKSASEGSSKKSGSGNSGKGGNQLRCPKCGDLCTHVETFVSSTRFVKCEKCHHFFVVLSEADSKKSI IKEP  
ESAAEAVKLAFQOKPPPPPKIYNYLDKYVVGQSFAKKVLVAVYNHYKRIYNNIPANLRQQAEEVEKQTSLTPRE  
LEIRRREDEYRFTKLLQIAGISPHGNALGASMQQQVNQQIPQEKRGGEVLDSSHDDIKLEKSNILLGPTGSGKT  
LLAQTLAKCLDVPFAICDCTTLTQAGYVGEDIESVIAKLLQDANYNVEKAQQGIVFLDEVDKIGSVPGIHQLRDV  
GGEGVQQGLLKLLEGTIVNVPEKNSRKL RGETVQVDTTNILFVASGAFNGLDRIISRKNEKYLGFGTSPNLGKG  
RRAAAAADLANRSGESNTHQDIEEKDRLLRHVEARDLIEFGMIPEFVGRLPVVPLHSLDEKTLVQILTEPRNAV  
IPQYQALFSMDKCELVNTE DALKA IARLALERKTGARGLR SIMEKLLLEPMFEVPNSDIVCVEVDKEVVEGKKEP  
GYIRAPTKESEEEYDSGVVEEGWPRQADAANS

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**FIGURE 477**

GCCCCGCCGCCGGCAGTGGACCGCTGTGCGCGAACCCTGAACCCTACGGTCCCGACCCGCGGGCGAGGCCGGGTA  
CCTGGGCTGGGATCCGGAGCAAGCGGGCGAGGGCAGCGCCCTAAGCAGGCCCGGAGCGATGGCAGCCTTGATGAC  
CCCGGGAACCGGGGCCCCACCCGCGCCTGGTGACTTCTCCGGGGAAGGGAGCCAGGGACTTCCCGACCCTTCGCC  
AGAGCCCAAGCAGCTCCCGGAGCTGATCCGCATGAAGCGAGACGGAGGCCGCCTGAGCGAAGCGGACATCAGGGG  
CTTCGTGGCCGCTGTGGTGAATGGGAGCGCGCAGGGCGCACAGATCGGGGCCATGCTGATGGCCATCCGACTTCG  
GGGCATGGATCTGGAGGAGACCTCGGTGCTGACCCAGGCCCTGGCTCAGTCGGGACAGCAGCTGGAGTGGCCAGA  
GGCCTGGCGCCAGCAGCTTGTGGACAAGCATTCCACAGGGGGTGTGGGTGACAAGGTCAGCCTGGTCTCGCACC  
TGCCCTGGCGGCATGTGGCTGCAAGGTGCCAATGATCAGCGGACGTGGTCTGGGGCACACAGGAGGCACCTTGGA  
TAAGCTGGAGTCTATTCTGGATTCAATGTTCATCCAGAGCCCAGAGCAGATGCAAGTGCTGCTGGACCAGGCCGG  
CTGCTGTATCGTGGGTCAGAGTGAGCAGCTGGTTCTGCGGACGGAACTCCTATATGCAGCCAGAGATGTGACAGC  
CACCGTGGACAGCCTGCCACTCATCACAGCCTCCATTCTCAGTAAGAACTCGTGGAGGGGCTGTCCGCTCTGGT  
GGTGGACGTTAAGTTCGAGGGGGCGCCGTCTTCCCCAACCAGGAGCAGGCCCGGGAGCTGGCAAAGACGCTGGT  
TGGCGTGGGAGCCAGCCTAGGGCTTCGGGTGCGGGCAGCGCTGACCGCCATGGACAAGCCCTGGGTGCTGCGT  
GGGCCACGCCCTGGAGGTGGAGGAGGCGCTGCTCTGCATGGACGGCGCAGGCCCGCCAGACTTAAGGGACCTGGT  
CACCACGCTCGGGGGCGCCCTGCTCTGGCTCAGCGGACACGCGGGGACTCAGGCTCAGGGCGCTGCCCGGTGGC  
CGCGGCGCTGGACGACGGCTCGGCCCTTGGCCGCTTCGAGCGGATGCTGGCGGCGCAGGGCGTGGATCCCGGTCT  
GGCCCGAGCCCTGTGCTCGGGAAGTCCCGCAGAACGCCGGCAGCTGCTGCCTCGCGCCCGGGAGCAGGAGGAGCT  
GCTGGCGCCCGCAGATGGCACCGTGGAGCTGGTCCGGGCGCTGCCGCTGGCGCTGGTGTGCTGCACGAGCTCGGGGC  
CGGGCGCAGCCGCGCTGGGAGCCGCTCCGCCTGGGGGTGGGCGCAGAGCTGCTGGTTCGACGTGGGTGAGAGGCT  
GCGCCGTGGGACCCCCTGGCTCCGCGTGCACGGGACGGCCCCGCGCTCAGCGGCCCGCAGAGCCGCGCCCTGCA  
GGAGGCGCTCGTACTCTCCGACCGCGCGCCATTGCCCCCCCCCTCGCCCTTCGCAGAGCTCGTTCTGCCGCCGCA  
GCAATAAAGCTCCTTTGCCGCGAAA

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**FIGURE 478**

MAALMTPGTGAPPAPGDFSGEGSQGLPDPSPPEPKQLPELIRMKRDGGRLSEADIRGFVAAVVNGSAQGAQIGAML  
MAIRLRGMDLEETSVLTQALAQSGQQLWPEAWRQQLVDKHSTGGVGDKVSLVLAPALAACGCKVPMISGRGLGH  
TGGTLDKLESIPGFNVIQSPEQMQLLDQAGCCIVGQSEQLVPADGILYAARDVTATVDSLPLITASILSKKLVE  
GLSALVVDVKFGGA AVFPNQEQA RELAKTLVGVGASLGLRVAAALTAMDKPLGRCVGHAEVEEALLCMDGAGPP  
DLRDLVTTLGGALLWLSGHAGTQAQGAARVAAALDDGSALGRFERMLAAQGVDPGLARALCSGSPAERRQLLPRA  
REQEELLAPADGTVELVRALPLALVLHELGA GR SRAGEPLRLGVGAELLVDVGQRLRRGTPWLRVHRDGPALSGP  
QSRALQEALVLSDRAPFAAPSPFAELVLPPQQ

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**FIGURE 479**

GAGGCGAACCGGAGCGCGGGGCCGCGGTCGCCCCGACCAGAGCCGGGAGACCGCAGCACCCGCAGCCGCCCCGCGA  
GCGCGCCGAAGACAGCGCGCAGGCGAGAGCGCGGGCGGGGGCGCGCAGGCCCTGCCCGCCCCCTCCCGTCCCCA  
CCCCCTCCGCCCTTTCTCTCCCCACCTTCCTCTCGCCTCCCGCGCCCCCGCACCGGGCGCCCCACCTGTCTCT  
CTCCTGCGGGAGCGTTGTCCGTGTTGGCGGCCGAGCGGGCGGGGCCGGTCCGGCGGGCGGGGGGATGGCGCTGC  
TGGACCTGGCCTTGGAGGGAATGGCCGTCTTCGGGTTCGTCTCTTCTTGGTGCTGTGGCTGATGCATTTTCATGG  
CTATCATCTACACCCGATTACACCTCAACAAGAAGGCAACTGACAAACAGCCTTATAGCAAGCTCCCAGGTGTCT  
CTCTTCTGAAACCACTGAAAGGGGTAGATCCTAACTTAATCAACAACCTGGAAACATTCTTTGAATTGGATTATC  
CCAAATATGAAGTGCTCCTTTGTGTACAAGATCATGATGATCCAGCCATTGATGTATGTAAGAAGCTTCTTGGA  
AATATCCAAATGTTGATGCTAGATTGTTTATAGGTGGTAAAAAGTTGGCATTAAATCCTAAAATTAATAATTTAA  
TGCCAGGATATGAAGTTGCAAAGTATGATCTTATATGGATTGTGATAGTGGAATAAGAGTAATTCAGATACGC  
TACTGACATGGTGAATCAAATGACAGAAAAAGTAGGCTTGGTTCACGGGCTGCCTTACGTAGCAGACAGACAGG  
GCTTTGCTGCCACCTTAGAGCAGGTATATTTTGGAACTTCACATCCAAGATACTATATCTCTGCCAATGTAAGT  
GTTTCAAATGTGTGACAGGAATGTCTTGTTTAATGAGAAAAGATGTGTTGGATCAAGCAGGAGGACTTATAGCTT  
TTGCTCAGTACATTGCCGAAGATTACTTTATGGCCAAAGCGATAGCTGACCGAGGTTGGAGGTTTGCAATGTCCA  
CTCAAGTTGCAATGCAAACTCTGGCTCATATTCAATTTCTCAGTTTCAATCCAGAATGATCAGGTGGACCAAAC  
TACGAATTAACATGCTTCCTGCTACAATAATTTGTGAGCCAATTTTCAAGATGCTTTGTTGCCAGTTTAATTATTG  
GATGGGCAGCCACCATGTGTTTCAAGATGGGATATTATGGTATTTTTCATGTGTTCATTGCCTGGCATGGTTTATAT  
TTGACTACATTCAACTCAGGGGTGTCCAGGGTGGCACACTGTGTTTTTCAAACCTTGATTATGCAGTCGCCTGGT  
TCATCCGCGAATCCATGACAATATACATTTTTTTGTCTGCATTATGGGACCCAACTATAAGCTGGAGAACTGGTC  
GCTACAGATTACGCTGTGGGGGTACAGCAGAGGAAATCCTAGATGTATTAAGTACAGCTTTGTGACTGTATATAAA  
GGAAAAAGAGAAGTATTATAAATTATGTTTATATAAATGCTTTTAAAAATCTACCTTCTGTAGTTTTATCACAT  
GTATGTTTTGGTATCTGTTCTTTAATTTATTTTTGCATGGCACTTGCATCTGTGAAAAAAA

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**FIGURE 480**

MALLDLALEGMAVFGFVLFVLVWLMHFMALIIYTRLHLNKKATDKQPYSKLPGVSLLKPLKGVDPNLINNLETFFE  
LDYPKYEVLLCVQDHDDPAIDVCKKLLGKYPNVDARLFIGGKKVGINPKINNLMPGYEVAKYDLIWICDSGIRVI  
PDTLTDMVNQMTEKVGLVHGLPYVADRQGFATLEQVYFGTSHPRYYISANVTGFKCVTGMSCLMRKDVLDQAGG  
LIAFAQYIAEDYFMAKAIADRGWRFAMSTQVAMQNSGSYSISQFQSRMIRWTKLRINMLPATIICEPISECFVAS  
LIIGWAAHHVFRWDIMVFFMCHCLAWFIFDYIQLRGVQGGTLCFSKLDYAVAWFIRESMTIYIFLSALWDPTISW  
RTGRYRLRCGGTAEIILDV

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**FIGURE 481**

CAGAGTCAGAAAAC TCCCCAGCTAAACACCCGTAAGACTTCATACAACACAATACTCTATACTGTGATGATCACA  
GCTGCCAAGGCTACCTAAAAGAAGACAGTTATCTCATATTTGGCTGCCAGCTTTTTATCTTTCTCTCGACCACTT  
AAAAC TTCAGACTTCCTGTCCTGCTGGTATC ATGGAGAAAAGTCCAATACCTCACTCGCTCAGCTATAAGAAGAGC  
CTCAACCATTGAAATGCCTCAACAAGCACGTCAAAAGCTACAGAATCTATTTATCAATTTCTGTCTCATCTTAAT  
ATGTCTCTTGCTGATCTGTATCATCGTGATGCTTCTCT TGAAGTTCTGCTACAACCTCTAGATCTGCAGCTTGCCA  
CATCAGCTTAAAATCTGTCATCCCATGCAGACAGGAAAAACAATATTGTATAACAGACCACTTCCTGAGTAGAAGA  
GTTTCTTTGTGAAAAGGTCAAGATTAAGACTAAAACTTATTGTTACCATATGTATTCATCTGTTGGATCTTGTA  
ACATGAAAAGGGCTTTATTTTCAAAAATTAACCTTCAAAAATAAGTGTATAAAATGCAACTGTTGATTTCCCTCAACA  
TGGCTCACAAATTTCTATCCCAAATCTTTTCTGAAGATGAAGAGTTTAGTTTTAAACTGCACTGCCAACAAGTT  
CACTTCATATATAAAGCATTATTTTTACTCTTTTGAGGTGAATATAATTTATATTACAATGTAAAAGCTTCTTTA  
ATACTAAGTATTTTTTCAGGTCTTCACCAAGTATCAAAGTAATAACACAAATGAAGTGTCATTATTCAAAATAGTC  
CACTGACTCCTCACATCTGTTATCTTATTATAAAGAATCTTTGTAGTAAGTATCAGAATCTACATTCTAAAACA  
GAAATTGTATTTTTTCTATGCCACATTAACATCTTTTAAAGTTGATGAGAATCAAGTATGGAAAAGTAAGGCCAT  
ACTCTTACATAATAAAATTCCTTTTTAAGTAATTTTTTCAAAGAATCACAGAATTCTAGTACATGTAGGTAAATCA  
TAAATCTGTTCTAAGACATATGATCAACAGATGAGAACTGGTGGTTAATATGTGACAGTGAGATTAGTCATATCA  
CTAATATACTAACAACAGAATCTAATCTTCATTTAAGGCACTGTAGTGAATTATCTGAGCTAGAGTTACCTAGCT  
TACCATACTATATCTTTGGAATCATGAAACCTTAAGACTTCAGAATGATTTTGCAGGTTGTCTTCCATTCCAGCC  
TAACATCCAATGCAGGCAAGGAAAATAAAAGATTTCCAGTGACAGAAAAATATATTATCTCAAGTATTTTTTAAA  
AATATATGAATCTCTCTCCAAATATTAATAATTATTAGATTATATTTTGAAATGAACTGTTGGCCCATCTAT  
TACATCTACAGCTGACCCTTGAACATGGGGGTAGGGGAGCTGACAATTCGTGGGTCCGCAAAATCTTAACTACC  
TAATAGCCTACTATTGACCATAAACCTTACTGATAACATAAACAGTAAATTAACACATATTTTGCCTGTTATATG  
TATTATACACTATATTCCTACAATAAAGTAAGCTAGAGAAAATGTTATTTAGAAAATCAT

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**FIGURE 482**

MEKVQYLTRSAIRRASTIEMPQQARQKLQNLFINFCLILICLLLCIIVMLL



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**FIGURE 483**

CACGAGTTGGTTTGGGAGCTGCCAGTCTCCTGGGAGGATCGCAGTCAGCAGAGCAGGGCTGAGGCCTGGGGGTAG  
GAGCAGAGCCTGCGCATCTGGAGGCAGCATGTCCAAGAAAGGGAGTGGAGGTGCAGCGAAGGACCCAGGGGCAGA  
GCCCACGCTGGGGATGGACCCCTTCGAGGACACACTGCGGCGGCTGCGTGAGGCCTTCAACTGAGGGCGCACGCG  
GCCGGCCGAGTTCCGGGCTGCGCAGCTCCAGGGCCTGGGCCACTTCCTTCAAGAAAACAAGCAGCTTCTGCGCGA  
CGTGCTGGCCCAGGACCTGCATAAGCCAGCTTTTCGAGGCAGACATATCTGAGCTCATCCTTTGCCAGAACGAGGT  
TGACTACGCTCTCAAGAACCTTCAGGCCTGGATGAAGGATGAACCACGGTCCACGAACCTGTTTCATGAAGCTGGA  
CTCGGTCTTCATCTGGAAGGAACCCCTTTGGCCTGGTTCCTCATCATCGCACCCCTGGAACCTACCCATTGAACCTGAC  
CCTGGTGCTCCTGGTGGGCACCCCTCCCCGAGGGGAATTGCGTGGTGCTGAAGCCGTGAGAAATCAGCCAGGGCAC  
AGAGAAGGTCTGGCTGAGGTGCTGCCCCAGTACCTGGACCAGAGCTGCTTTGCCGTGGTGCTGGGCGGACCCCA  
GGAGACAGGGCAGCTGCTAGAGCACAAGTTGGACTACATCTTCTTCACAGGGAGCCCTCGTGTTGGGCAAGATTGT  
CATGACTGCTGCCACCAAGCACCTGACGCCTGTCAACCTGGAGCTGGGGGGCAAGAACCCTGCTACGTGGACGA  
CAACTGCGACCCCCAGACCGTGGCCAACCGCGTGGCCTGGTTCTGCTACTTCAATGCCGGCCAGACCTGCGTGGC  
CCCTGACTACGTCTGTGTCAGCCCCGAGATGCAGGAGAGGCTGCTGCCCGCCCTGCAGAGCACCATACCCGTTT  
CTATGGCGACGACCCCCAGAGCTCCCCAAACCTGGGCCGATCATCAACCAGAAACAGTTCCAGCGGCTGCGGGC  
ATTGCTGGGCTGCGGCCGCGTGGCCATTGGGGGCCAGAGCAACGAGAGCGATCGCTACATCGCCCCACGGTGCT  
GGTGGACGTGCAGGAGACGGAGCCTGTGATGCAGGAGGAGATCTTCGGGCCCATCCTGCCCATCGTGAACGTGCA  
GAGCGTGGACGAGGCCATCAAGTTTCATCAACCGGCAGGAGAAGCCCTGGCCCTGTACGCCTTCTCCAACAGCAG  
ACAGGTTGTGAACCAGATGCTGGAGCGGACCAGCAGCGGCAGCTTTGGAGGCAATGAGGGCTTACCTACATATC  
TCTGCTGTCCGTGCCATTGCGGGGAGTCGGCCACAGTGGGATGGGCCGGTACCACGGCAAGTTACCTTCGACAC  
CTTCTCCCACCACCGCACCTGCCTGCTCGCCCCCTCCGGCCTGGAGAAATTAAAGGAGATCCGCTACCCACCCTA  
TACCGACTGGAACCAGCAGCTGTTACGCTGGGGCATGGGCTCCAGAGCTGCACCCTCCTGTAGCGTCCCACCC  
GCCTCCAACGGGTACACAGAGAAACCTGAGTCTAGCCATGAGGGGCTTATGCTCCCAACTCACATTGTTCTCTCC  
AGACCGCAGGCTCCCCCAGCCTCAGGTTGCTGGAGCTGTACATGACTGCATCCTGCCTGCCAGGGCTGCAAAGC  
AAGGTCTTGCTTCTATCTGGGGGACGCTGCTCGAGAGAGGCCGAGAGGCCGAGAACATGCCAGGTGTCCTCACT  
CACCCACCCCTCCCCAATTCCAGCCCTTTGCCCTCTCGGTGAGGGTTGGCCAGGCCCAGTCACAGGGGCAGTGTC  
ACCCTGGAAAATACAGTGCCCTGCCTTCTTAGGGGCATCAGCCCTGAACGGTTGAGAGCGTGGAGCCCTCCAGGC  
CTTTGCTCTCCCCTCTAGGCACACGCGCACTTCCACCTCTGCCCCATCCCAACTGCACCAGCACTGCCTCCCCCA  
GGGATCCTCTCACATCCCACACTGGTCTCTGCACCACCCCTCTGGTTACACCGCACCCCTGCACTACCCACAGC  
AGCTCCATCCACTGGGAAAACCTGGGGTTTGCATCACTCCACTGCACAGTGTTAGTGGGACCTGGGGGCAAGTCCC  
TTGACTTCTCTGAGCCTCAGTTTCCTTATGTGAAAGTTGCTGGAACCAAAATGGAGTCACTTATGCCAAACTCTA  
ATAAAATGGAGTCGGGGGGGCACATAGAAGCCCTCACACACACATGCCCCGTAAACAGGATTTATCACCAGACAG  
CCTGCATGTAAGACCAGACACAGGGCGTATGAAAAGCACGTCCTCAAAGACTGTAGTATTCCAGATGAGCTGCA  
GATGCTTACCTACCACGGCCGTCTCCACCAGAAAACCATCGCCAACCTCCTGCGATCAGCTTGTGACTTACAAACC  
TTGTTTTAAAGCTGCTTACATGGACTTCTGTCTTTTAAACGTTCCCTTGGCTGTGGCCCTCTGTGTATGCCTG  
GGATCCTTCCAAGCACTCATAGCCCAGATAGGAATCCTCTGCTCCTCCCAAATAAATTCATCTGTTT

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**FIGURE 484**

MKDEPRSTNLFMKLDSVFIWKEPFGLVLI IAPWNYPLNLT LVLLVGTLPAGNCVVLKPSEISQGTEKVLAEVLPQ  
YLDQSCFAVVLGGPQETGQ LLEHKLDYIFFTGSPRVGKIVMTAATKHLTPVTLELGGKNPCYVDDNCDPQTVANR  
VAWFCYFNAGQTCVAPDYVLCSPERMQERLLPALQSTITRFYGDDPQSSPNLGRIINQKQFQRLRALLGCGRVAIG  
GQSNESDRYIAPT VLV DVQETEPVMQEEIFGPILPIVNVQSVDEAIKF INRQEKPLALYAFSNSRQVVNQMLERT  
SSGSFGGNEGFTYISLLSVPFGGVGHS GMGRYHGKFTFDTF SHHRTCLLAPSGLEKLKEIRYPPYTDWNQQLLRW  
GMGSQSCTLL

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**FIGURE 485**

GGCAGGCCGAGCCAGCCGTGCGCCGCGCTCCAGGGCCCAGGGCGCCGCACACGCACCCACCCACCCACCCAGCCT  
CGCAGCGCC**AT**GGGCAAGAACAAGCAGCCACGCGGCCAGCAGAGGCAGGGGGGCCCGCCGGCCGCGGACGCCGCT  
GGGCCCCGACGACATGGAGCCGAAGAAGGGCACGGGGGGCCCCAAGGAGTGCGGGGAGGAGGAGCCCCGGACCTGC  
TGCGGCTGCCGGTTCCCGCTGCTGCTCGCCCTGCTGCAGCTGGCCCTGGGCATCGCCGTGACCGTGGTGGGCTTC  
CTCATGGCGAGCATCAGCTCCTCCCTGCTAGTCAGGGACACTCCATTTTGGGCTGGGATCATTGTCTGCTTAGTG  
GCCTATCTTGGCTTGTTTATGCTTTGTGTCTCATATCAGGTTGACGAACGGACATGTATTCAATTTCTATGAAA  
CTGTTATACTTTCTGCTGAGTGCCCTGGGCCTGACGGTCTGTGTGCTGGCCGTGGCCTTTGCCGCCACCACTAT  
TCGCAGCTCACACAGTTTACCTGTGAGACCACACTCGACTCTTGCCAGTGCAAAGTCCCTCCTCGGAGCCGCTC  
AGCAGGACCTTTGTTTACCGGGATGTGACGGACTGTACCAGCGTCACTGGCACTTTCAAAGTGTCTTACTCATC  
CAGATGATTCTTAATTTGGTCTGCGGCCTTGTTGTCTTGTTGGCCTGCTTTGTGATGTGGAACATAGGTACCAG  
GTCTTCTATGTGGGTGTGAGGATATGCTCCCTCACGGCTTCGGAAGGCCCCCAGCAAAAGATC**TAA**CATTCTTGC  
TCAAAGTTGCGAGAGAAAGTAGCACATGGAGTAGCTGAGGTTAAACAAACAAAAAAATTTTAAACAAAGAAA  
GAAAAAATTGACAATAAAAGTCACTCTTCTAATTGAATATTTTATATTTTATGAAACAAAAGAGCATTCTT  
CAGGTTTCTATTGTATTTTTTTTAAACATTCTTGAGAGAAAGCAAGATCCAAATTGATTTTGGGATATTAAAGT  
TAACAGAACTGAACAAGGAAAGAATGGCATAGATCTATCTTTACAGTCTGGAGTTAATTCCTGTTAACTCATT  
TTATCCATTCTTACATAATCTTCTTCTGTTAGTCCAGTTTGATGGTGTGAATGGTGAATTTAGGCCCCAGTT  
GCTAAATTTGTGGCATCTTCTCTAGTCCTTCCACCTCCAGTCATCAGCCCCACTCTGTCTTGGAGACAGGCA  
GGAGGTGGGGGAAGAGCTGAATCTCTTTATTTTCCCTGGTAGAGACATCTTCAAGGCATGAAATAGCTTAAAGAG  
CAGAGTAGAAATGGAAGAGGCTTTGCAAAGGCTAGATAACTAACACACCTGGGTTGGGGCGGCGGCCTCTTCT  
CTTCAGCTCCCTTAGCTTGGCTCCGTAAGTGGATCACTTGCCAAATGCTTTAGATGATTGCCTCTCAATAATTGA  
AAGGTGGTGGTAGTTGTATTCTAAATGATGTAGAAGGTTAAAAATAATTACATTATGCTTCTATTCTATCATCT  
AAAACAAATCATTAAACTAATTTCTAGCTAATTGTTAATTATAATTATGCTCAGAAGTCTATTTAATGAGCTCT  
GACTGTACTTACGCTGCACTGTGCGGTGTTAAGAGAAATTACTCTCACAAAGAGCAGAGGCCTGAAGATTCTTTCTT  
CTGAAAGCCAAGCACCACAAGGAAAAAAATTTATTAATAGCTCAGGTTAAAAACACCCATTTAAACAAAAACAA  
GAGCATTGTGTAATAGGAAGTGTATATACAAACAGCACATTTGTGATATGTTGAAAAGCATCTCTCTTGGCAACCA  
ATCTATGTTTGAGGAAGATTGGGTAATGCTGATGTGTTCCATTGATAAAGTGTATTTGATACATAATCCTATTA  
TTAATTCGTATGCTTAGTCAACCTAGGAAATCAAATAATGTTTTGAAGTCTTATTTGAGCAATATGGCCTTGA  
CTTGGAGGGTAGTTTTAGTTGTTTTGTTTTAAGTGAAGTGTGTTTAAAGCACAAATGCCCCAAGGTGGGGAGAC  
TTCTCTCTGTGATTATTGTTGCTATTAAATCTGAACTGTATCCATATTTTAAAGGAAGGAGCTAAAAATGGAAAT  
TCATGAAACATAAATGGTATCAAGAAGTTTATCAGTATGCTTTGTTGAAAGCAGAAATTAAGATAATAATTGAGT  
TCAATTCGCCTCTCCGCATTGCCTATTGATACACTTTACTAATCATGAAATCTAACCTAAAAGGAAAACATTTT  
CCTGCTTGTCTTAGAAGAAAGTGGAAATAATTCCACTGATTGTGATAATGGTTTCAATTTCTACACAATATAAATA  
TCCAGTATAAAGGAAAAGCGTTAAGTCGGTAAGCTAGAGGATTGTAAATATCTTTTATGTCCTCTAGATAAAACAC  
CCGATTAAACAGATGTTAAACCTTTTAAATGTTTTGATTTGCTTTAAAAATGGCCTTCCTACACATTAGCTCCAGCT  
AAAAAGACACATTGGAGAGCTTAGAGGATAAGTCTCTGGAGCAGAATTTATCACACACAAAAGTTACACCAACAG  
AATACCAAGCAGAATGATGAGGACCTGTAAAATACCTTGTGCCCTATTAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 486**

MGKNKQPRGQQRQGGPPAADAAGPDDMEPKKGTGAPKECGEEEPRTCCGCRFPLLLALLQLALGIAVTTVVGFLMA  
SISSSLLVRDTPFWAGIIVCLVAYLGFLMLCVSYQVDERTCIQFSMKLLYFLLSALGLTVCVLAVAFAAHHYSQL  
TQFTCETTLDSQCCKLPSSSEPLSRTFVYRDVTDCTSVTGTFLKFLLIQMILNLVCGLVCLLACFVMWKHRYQVFY  
VGVRICSLTASEGPQQKI

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**FIGURE 487**

CGGCAGCCAGCTGAGAGCAATCGGGAAATGGGGAGTCCCAGCTGTCCTCGGTGCCTGCTCAGAAGCTGGGTGGTT  
TATCCAGGAATACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAGATGGTGAACACCATCTGTGACGT  
CTGCAGGAACCCCGAACAGTTCCCCCTGGTGCAGGGAGTGGCCATAGGTGGCTCCTATGGACGGAAACAGTCTT  
AAGAGGCAACTCCGATGGTACCCTTGTCTTTTCTTCAGTGACTTAAAACAATTCCAGGATCAGAAGAGAAGCCA  
ACGTGACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCTGTTACGAAGTGGTTGAAAAACAATTCGA  
GATCCAGAAGTCCCTTGATGGGTCCACCATCCAGGTGTTACAAAAAATCAGAGAATCTCTTTTCGAGGTGCTGGC  
CGCCTTCAACGCTCTGAGCTTAAATGATAATCCAGCCCTGGATCTATCGAGAGCTCAAAAGATCCTTGGATAA  
GACAAATGCCAGTCTGGTGAGTTTGCAGTCTGCTTCACTGAAGTCCAGCAGAAGTTTTTTGACAACCGTCTGG  
AAACTAAAGGATTTGATCCTCTTGATAAAGCACTGGCATCAACAGTGCCAGAAAAAATCAAGGATTTACCCTC  
GCTGTCTCCGTATGCCCTGGAGCTGCTTACGGTGTATGCCTGGGAACAGGGGTGCAGAAAAGACAACCTTTGACAT  
TGCTGAAGGCGTCAGAACGGTTCTGGAGCTGATCAAAATGCCAGGAGAAGCTGTGTATCTATTGGATGGTCAACTA  
CAACTTTGAAGATGAGACCATCAGGAACATCCTGCTGCACCAGCTCCAATCAGCGAGGCCAGTAATCTTGGATCC  
AGTTGACCCAACCAATAATGTGAGTGGAGATAAAATATGCTGGCAATGGCTGAAAAAGAAGCTCAAACCTGGTT  
GACTTCTCCCAACCTGGATAATGAGTTACCTGCACCATCTTGGAAATGCTCTGCCTGCACCACTCTTCACGACCCC  
AGGCCACCTTCTGGATAAGTTCATCAAGGAGTTTCTCCAGCCCAACAAATGCTTCTAGAGCAGATTGACAGTGC  
TGTTAACATCATCCGTACATTCTTAAAGAAAACTGCTTCCGACAATCAACAGCCAAGATCCAGATTGTCCGGGG  
AGGATCAACCGCCAAAGGCACAGCTCTGAAGACTGGCTCTGATGCCGATCTCGTCTGTGTTCCATAACTCACTTAA  
AAGCTACACCTCCCAAAAAACGAGCGGCACAAAATCGTCAAGGAAATCCATGAACAGCTGAAAGCCTTTTGGAG  
GGAGAAGGAGGAGGAGCTTGAAGTCAGCTTTGAGCCTCCCAAGTGGAAGGCTCCAGGGTGTGAGCTTCTCTCT  
GAAATCCAAAGTCTCAACGAAAGTGTGAGCTTTGATGTGCTTCTGCTTTAATGCACTGGGTGAGCTGAGTTC  
TGGCTCCACACCCAGCCCCGAGGTTTATGCAGGGCTCATTGATCTGTATAAATCCTCGGACCTCCCGGGAGGAGA  
GTTTTCTACCTGTTTTCAGTCTCTGCAGCGAACTTCATTGCTCCCGGCCACCAAATAAGGATTTAATTGCG  
CCTGGTGAAGCACTGGTACAAAGAGTGTGAAAGGAACTGAAGCCAAAGGGGTCTTTGCCCCCAAAGTATGCCTT  
GGAGCTGCTCACCATCTATGCCTGGGAGCAGGGGAGTGGAGTGCCGGATTTTGACACTGCAGAAGGTTTCCGGAC  
AGTCCTGGAGCTGGTCACACAATATCAGCAGCTCGGCATCTTCTGGAAGGTCAATTACAACCTTTGAAGATGAGAC  
CGTGAGGAAGTTTCTACTGAGCCAGTTGCAGAAAACAGGCCTGTGATCTTGGACCCAGGCGAACCCACAGGTGA  
CGTGGGTGGAGGGGACCGTTGGTGTGGCATCTTCTGGACAAAAGAAGCAAAGGTTAGGTTATCCTCTCCCTGCTT  
CAAGGATGGGACTGGAAACCCAATACCACCTTGGAAGTGCCGACAATGCAGACACCAGGAAGTTGTGGAGCTAG  
GATCCATCCTATTGTCAATGAGATGTTCTCATCCAGAAGCCATAGAATCCTGAATAATAATTCTAAAAGAACTT  
CTGGAGATCATCTGGCAATCGCTTTTAAAGACTCGGCTCACCGTGAGAAAGAGTCACTCACATCCATTCTTCCCT  
TGATGGTCCCTATTCTCTCTTCCCTTGCCCTTCTTGACTTCTTGAAATCAATCAAGACTGCAACCCCTTTCATAA  
AGCTGCCTTGCTGAACTCCTCTCTGCAGGAGCCCTGCTTAAATAGTTGATGTCATCACTTTATGTGCATCTTAT  
TTCTGTCAACTTGTATTTTTTTTTTCTTGTATTTTTTCCAATTAGCTCCTCCTTTTTCTTCCAGTCTAAAAAGGA  
ATCCTCTGTGTCTTCAAAGCAAAGCTCTTTACTTTCCCTTGGTTCTCATAACTCTGTGATCTTGCTCTCGGTGC  
TTCCAACCTCATCCACGTCTCTGTGTTTCTCTGTATACAAAACCTTCTGCCCCTGCTGACACAGACATCCTC  
TATGCCAGCAGCCAGGCCAACCTTTTATTAGAACTTCAAGCTCTCCAAAGGCTCAGATTATAACTGTTGTGATA  
TTTATATGAGGCTGTTGTCTTTTCTTCTGAGCCTGCCTTTATCCCCCACCAGGAGTATCCTCTTGCCAAAGC  
AAAAGACTTTTTCTTGGCTTTAGCCTTAAAGATACTTGAAGGTCTAGGTGCTTTAACCTCACATACCCTCACTT  
AAACTTTTATCACTGTTGCATATACCAGTTGTGATACAATAAGAATGTATCTGG

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**FIGURE 488**

MNGESQLSSVPAQKLGWFIQEYLKPYEECQTLIDEMVNTICDVCRNPEQFPLVQGVAIGGSYGRKTVLRGNSDG  
TLVLFFSDLKQFQDQKRSQRDILDKTGDKLKFCLFTKWLKNNFEIQKSLDGSTIQVFTKNQRISFEVLAAFNALS  
LNDNPSPWIYRELKRS�DKTNASPGFAVCFTELQQKFFDNRPGKLDLILLIKHWHQQCQKKIKDLPSPYAL  
ELLTVYAWEQGCRKDNFDIAEGVRTVLELIKQEKLCIYWMVNYNFEDETIRNILLHQLQSARPVILDPVDPTNN  
VSGDKICWQWLKKEAQTWLTSPNLDNELPAPSWNVLPAPLFTTPGHLLDKFIKEFLQPNKCFLEQIDSAVNIIRT  
FLKENCFRQSTAKIQIVRGGSTAKGTALKTGSDADLVVFHNSLKSYSQKNERHKIVKEIHEQLKAFWREKEEEL  
EVSFEPPKWKAPRVLSFSLKSKVLNESVSFDVLPFALGQLSSGSTPSPEVYAGLIDLYKSSDLPGGEFSTCFT  
VLQRNFIRSPTKLKDLIRLVKHWEKCEKRLKPKGSLPPKYALELLTIYAWEQSGVPDFDТАEGFRTVLELVT  
QYQQLGIFWKVNYNFEDETVRKFLLSQLQKTRPVILDPGEPTGDVGGGDRWCWHLLDKEAKVRLSSPCFKDGTGN  
PIPPWKVPTMQTPGSCGARIHPIVNEMFSSRSRILNNSKRNFWRSSGNRF

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**FIGURE 489A**

GATTATTCTGGAGGAAGATGACCTTCATTTTATGGTTATGTGTGTGTGTCTGTGTGTCTTTGGAAAAATATATAT  
AATTTTTTCAAATAGGAAGCCAACATATCAAGTGATGAATTAAAGTATGCTGCAGAATATATATTCTAAACTAC  
AAAAAGTCACTGAATATCAAAATGATACAGCTTATACATATAGTTACTGTGACAAGTGACAGACTGCTAGTTCA  
GAATTCAAAAATCCTTTCTAGTTTGTGAGATAATGGGCTAAATTCCTTCTGCCTGCCACTGGGGCAAAGCAAAT  
TGCTTTAGTTTTTGTATGAGAGTTCTTAGAAGTTTGTGGTATTCTTCATCCACAGCATCCATTGTTGAAATAAC  
CATTTTCAGTTGTGATGCCTTAAGTAAGAAGCCAATTGTTAGCCTGAAATGCAATCTTGGTAGCCAGTTTCAATG  
AAGCTAGAGATTAGTCAGAAAAAGTTAGCTGTTGGGCTTTAGAAAGGGATTTTGAGTCCTGTCAATTTCTACTTGG  
GAGCATTTTGGAGCAGATTAAGCTTTTCACTATAAAAAACAAGTGGCTACCTGATGGAACTTTTCTTACCCCTTATA  
GGGAACTGAGCACAAGCTGAATGATATTGTCTGTCTGCAAAAAAACAACAAAAAACAACAAAAAACAAC  
AAAAAACAACCTCGTGCCGAATTCGGCACGAGGGGAAGCCCCGTGCACCCCCGCCCTCCGGCCG  
CCGCCGCCCGCTGGCCCTGCAGCCGCTCGCCGCTCGCTCGGGCTACAGCCCCGGGCTCGGCCTGCCGCTGGGG  
AAGGAGGGCGGCGAGCGCTCCGGAGCCGCCGAGATGCGGGAGGGGCACTGCGGCAGCTTCCCCCGCGCGCGCGG  
CCGGCAGCGCGAGATCGTCCAACCTGAACGTAGGGGGGACCAGATTTAGTACCTCAAGACAACTCTTATGTGGA  
TTCCAGATTCTTTTTTTTCCAGTTTGTGTAGTGGGAGAATTTCAACACTTCGAGATGAACTGGTGCTATATTTA  
TTGATAGAGATCCAGCAGCATTTGCACCCATTTTAAATTTTCTTCGGACAAAAGAACTAGACTTAAGGGGAGTGA  
GTATTAATGTTCTCAGGCATGAAGCAGAATTTTACGGGATCACTCCATTAGTAAGAAGGCTTCTCTTATGTGAAG  
AATTGGAGCGTTCTCTTGTGGCAGTGTCTTTTTTCATGGTTACTTGCCCCACCAGGTATTCTAGTCGTAAAA  
TAAACAACACAGTCAGATCTGCTGATTCTAGGAATGGTCTAAATTTCTACAGAAGGTGAAGCCCGGGGAAATGGTA  
CACAGCCTGTTCTCTCTGGAACGGGAGAAGAACTGTTAGGCTAGGATTTCTGTGGATCCACGAAAGGTGCTAA  
TAGTAGCTGGCCATCACAACCTGGATTGTAGCTGCATATGCCCATTTTGTGTGTGGTACAGAATCAAAGAATCTT  
CAGGATGGCAGCAAGTGTTTACGAGCCCATATTTGGATTGGACTATCGAACGAGTAGCTTTAAATGCAAAGGTGG  
TTGGAGGGCCACATGGAGACAAAGACAAAATGGTTGCTGTGCTCAGAGAGTAGCATCATCTTGTGGAGTGTTC  
AGGATGGGGGAAGTGAAGTGAATTTGGAGTGTTCAGCCTGGGTGTTCTGTAGATGCTCTCTTCTTTATTGGTA  
ACCAGTTGGTGGCCACGAGTCATACAGGGAAGTGGGAGTGTGGAATGCTGTCACTCAGCACTGGCAGGTTCAAG  
ATGTTGTTCTTATAACTAGTTATGACACTGCTGGATCATTCCTTCTGCTTGGATGTAACAATGGATCAATATATT  
ACATAGATATGCAGAAGTTCCCTTTCGAATGAAAGATAATGATCTTCTGTAACTGAAGTGTATCATGATCCTT  
CAAATGATGCTATTACTGCTCTGAGTGTTTACCTCACACCCAAAACAAGTGTCAAGTGGTAACTGGATCGAGATCG  
CCTATGGTACGAGCTCTGGAGCAGTACGAGTGATTGTACAACCCAGAGACAGTTGGGTGAGTCTCTAGCTTTT  
TTCAGACTTTCACAGTTCACCGAAGTCCCGTAACAAAATCATGCTATCAGAGAAGCATCTTGTATCAGTCTGTG  
CAGATAATAATCATGTCCGGACGTGGACAGTAACACGATTACAGAGGAATGATCTCTACTCAGCCAGGTTCTACTC  
CTTTAGCGTCATTCAAGATACTATCCCTGGAGGAGACAGAAAGTCATGGTAGCTATTCTCTGGAATGACATAG  
GACCTTTTGGAGAGCGAGACGATCAACAGGTGTTTATCCAGAAAGTGTTCCTATCACCACAACTATTTGTAA  
GACTCTCATCGACTGGAAAAAGAATATGTGAGATCCAGGCTGTTGACTGTACTACAATATCTCATTACAGTGA  
GGGAATGTGAGGGATCCAGTAGGATGGGCTCAAGACCAAGGCGCTACTTGTTCACAGGCCATACAAATGGCAGTA  
TTCAAATGTGGGATCTGACCACTGCTATGGATATGGTTAACAAAAGTGAAGATAAGGATGTAGGTGGTCCAACCG  
AAGAAGAGCTACTCAAATTACTCGATCAATGTGATTTGAGCACATCTCGCTGTGCTACTCCTAACATCAGTCCAG  
CAACTTCCGTAGTTCAGCATAGCCACTTACGAGAATCAAATTCTAGCCTTCAGCTTCAGCACCATGATACACCC  
ATGAAGCAGCTACTTACGGTTCCATGAGGCCTTACAGAGAAAGTCTTTTATTAGCAAGGGCAAGAAGGACTGAGA  
GCTTTCACAGTTATAGGGACTTCCAGACTATTAATTTGAACAGAAATGTAGAAAGAGCTGTCCCTGAAATGGTA  
ACTTGGGTCCAATACAAGCTGAAGTGAAGGGGCAACAGGGGAATGTAATATATCTGAGAGAAAGTCTCCTGGAG  
TAGAAATAAAAGTTTGTAGAGAATTGGATAGTGGATTGGAAGTGCATAAAATAGCTGAAGTTTTTTCAGAATCCA  
AGAAAAGGTATCAGAAGATGAAAATGAAAATAAAATAGAGTTTAGGAAGAAAGGAGGATTTGAAGGGGGAGGAT  
TCCTTGAAGAAAGAAAGTTCCCTATCTGGCATCATCACCAGTACTTCCGATGGAGGAAGTACTCACCTGGTA  
CTGCGTCCCCATCTCTACAAAGACTACTCATCTCTCGGCATAAAAAAAGTGATTCTTCAGGTGAGGAGTACA  
GCTTGTGAAGAACTACCAAAATGAATAGTTGTTTCGGTTACATTTAGATGAAAGTTAACTTTACTGAATTTTACAG  
TACATTAGTTTTTACACTAAAACTTTACAAGATAAAATTTGAGTTCATTTAGTATCTTTTTAACAGAATTACTTG  
GAATAATGAGATACAATAATCATATCTTTTTGACATTTTGGAAATTTTTTAAATTTTACAAGTACATTTAACAG  
ATCATTTATAAAGCAGGAGTCCATTTTAAACACTTACCGACTTTTTTTTGGTTTGGAAACATATTACCACGTCTTAA

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**FIGURE 489B**

TAGGATGGTGCCCATATAGGTGAGCATCCCTTTAGATCATGGGAACCAGCAGACTGCATTCCCTAATCTTCATTAT  
GCCTGAGACTTGTCTTACAATGTTACCTTTAAGTGAATCACATAATTGTCTTTGGAACCTGGTCTCCCAACACTT  
ATTGTGATTGCAAAGTGTTTACCAGATATTTGATGAGGTGCTATGTTTGTGAAAAACATATCATGTAATTCAAAA  
ACACTATTGATATTGAATACCAGATACCACTATGTAGTAAGTCTTTTAGGATGATTTTAATTTAGTCGTGCGTCA  
TTTTCTGATTCTCATCATTGGGAGATCTTAAATCTTAGCAAGCATTAGCAATATTAAATGCCAAAATTCCATTGA  
AACTTTCAAGTTGGAGCAATTGTCTGTGTTTGAAGAAGATGAAATAAAAATAATAATCAAGGGCAAAGCTTTGAGT  
GCCCAGAAGGGAAAGCTGTACCAGTTGCTAACCTGTCTTGTTTCAGGAGCCACCATGTTTTTTTTTCAGTGTTAA  
CAACAATCATGATAATTAAATTAAAACACTAGTTTGTTCACCTTGTAGGACTGCAGTTCTGAATTTTGGGTAAAG  
GTTTGGCTGCTGTAAGAATGTGAATTTGAATGTATTTTGAATTGTAAGAGCAAAGAACGTTTTTGTACAATTT  
TTTTTCATTTAATTGGAATGATCTTCAGGTTTCTACAAATAGGGTAATTGTAAATTTAAAGCATTAGCATTATT  
GGTGAATAATGTATATATCCCCATTCCAAGAAATATAAGTGAGTGAAGTTGAAATAAAATCTTTAAATTTA



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**FIGURE 490**

MAGGHCGSFPAAGSGEIVQLNVGGTRFSTSRQTLMWIPDSFFSSLLSGRISTLRDETGAIFIDRDPAAAFAPIL  
NFLRTKELDLRGVSINVLRHEAEFYGITPLVRRLLLCEELERSSCGSVLFHGYLPPPGIPSRKINNTVRSADSRN  
GLNSTEGEARGNGTQPVLSGTGEETVRLGFPVDPRKVLIVAGHHNWIVAAYAHFAVWYRIKESSGWQQVFTSPYL  
DWTIERVALNAKVVGPHGDKDKMVAVASESSIILWSVQDGGSGSEIGVFSLGVPVDALFFIGNQLVATSHTGKV  
GVWNAVTQHWQVQDVVPITSYDTAGSFLLLGCNNGSIYYIDMQKFPLRMKDNDLLVTELYHDPSNDAITALSVYL  
TPKTSVSGNWIEIAYGTSSGAVRVIVQHPETVGSGPQLFQFTTVHRSPVTKIMLSEKHLVSVCADNNHVRTWTVT  
RFRGMISTQPGSTPLASFKILSLEETESHGSYSSGNDIGPFGERDDQQVFIQKVVPITNKL FVRLSSTGKRICEI  
QAVDCTTISSTVRECEGSSRMGSRPRRYLFTGHTNGSIQMWDLTAMDMVNKSEDKDVGGPTTEEELLKLLDQCD  
LSTSRCATPNISPATSVVQHSHLRESNSSLQLQHHDTTHEAATYGSMRPYRESPLLARARRTESFHSYRDFQTIN  
LNRNVERAVPENGLGPIQAEVKGATGECNISERKSPGVEIKSLRELD SGLEVHKIAEGFSESKKRSSDENENK  
IEFRKKGGFEGGGFLGRKKVPYLASSPSTSDGGTDSPGTASPSPTKTPSPRHKKSDSSGQEYSL

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**FIGURE 491**

CTCTGGGCACCTTTTGAACCTACGAACCTTGCGCAAAACCCAGAAGATGTATTCATGAGCCACCCAGGCCACTGAC  
CTCCCACTTTGGGGAACCTCAAAGGACTGACCTGCCCCCTGCCGCTGTGCCCCCTTGCCTGGCGCTCGCAGAGGATA  
CGTGCTACACGGCCTTGTCGGCCTGTCGACCCGTGCTAGTGAGGAGCCTAGAGAA,TGGGGCGCTCCTGGTCGTGC  
CGTGGGCTCCATGGGAGAGACATTGCGGGTTTCTGGTTGGACGGCCCTTTTCTGGCTCCTGTGTGGAGTTATTCA  
CTCTCCCAGAGGCTCCTGGAGCCAGCCACCCTAACCTGAGCTGCCAGTGGGGTCTGTGAGGCAAGATCCCCGCCACC  
CGGGGACATCTTCAATCTAGGCGAGGCGAAGCTGAGCGGGTCTAGTGGAAGATTGTGTCTGGTCGTTTGACCAC  
ACACCGCCCTGATTTGCTGTTTTCTTTTTTTAGGGAGAAGGGCTTTTCTTTAGTGAGAAATGGAACCTCGCCCCC  
CTACCCCTTGCTGTCTGCTCCCAGCCACGTTGGTGGTATTGGCCGATGAGCTGGTTTGACTCATTAATTTCTCT  
CAATTTGGGTCCCAGCTAAAGAGGTGGGGTGAAGCTGGGGACAGCTTTCTGGGTGAGTTTTTCTTTTGAATAAT  
GTAGTGCAGTCACCTGTGGCAAATGCCAGGACAGCTGCAGGTGCCATTAGCAACGCCTGCCTTCTGGGCAAGG  
TGAGGGATGCCATACCTTGAGACCAAGCCGTGCCACCTAAGGGCTAAGGCCTCTTGCTGGTGACATGACATT  
TGTCTGCAGAGCTGGGGGGAAGGCGATGTGGTGACCCACCCACCCGTTAATTTAAAGCTGTTTCTAAACAG  
TTGAGTTTCTTCTAAAGAGGAAGCCTTGCCAGCAAGGACCAGTGAGACAGCCGGATCTTGAGACAATTACAAG  
ACGGGGAGTGAGACTCCTGATTGCTCTGGAAGCCTGCTGATTTCTACAAGTATCATTTGCAGCTGCTGGTTTTG  
GTTTCCACCTTACCCTACTGGCTGTAAAAACACAAATGTGTACTTTATTGATTTTCTTTCTAATTCTCCCGCATT  
GGTGGCTTGGGACTTGGGAGAGGGAGCAAGCCTTCCCTCCATGGCCCATCACTCGGCTGTGGAGAACAAGACCAA  
TGTGAAGACACTACAGAGGATTCTGTCTTCCAGGCCAGTCCACTGGGGAGTGCTGGAATGGGGACCTGGGGTGG  
GGAGGCAGAGGGTCACTTTACATAGGATTAAGTTCGAGGTGGCTACCGATTTAGCACATGCACTACTGAAATTT  
ACACAAAAAGAAAGCTGTGAAATTGAAGTCCCAATTTAAGAGTCTTGAGGCAGAACCTGGTGGCTGGAGGCATT  
CCAGAGGTGGGGAAGAGAGCCTGCCCGGCCGGAGAACATCTGCCTTGCTGCACCTGAGGCCAGCAGAGCCGTT  
CTGGGACTGTGAGATAATCGGTGCAGCGGTGGAAGGAGCCTGCGGCTGCTGGCACAGACTTCACACAGCACCTCC  
TCTCTGCTGGGTTTCCACACAGCCTGTCTTCAGATCCTGCTGCCGCTGCGACCAGAGGTGGGAGGCCCTGGTG  
GCATGGAAGAGGGAGGGTCAGTGCCAAGTCTCAGGAGGAGGGCGCATGTGTGTATCACCTCAGCTGGCGGAACC  
TGGCTGCGAACTGTGCAGTTACGTTGCATCCACAGGATTCCAGTTGCGTGTCTGTTTCTCTTTCTCCGTAT  
TTATTTTTTTTATTCTTCGGAGGAGGTGGACATTTCCGGAAGTGTTGGGGACTAAGGGAAGAACTCTCTAGTTCCCT  
CAGTGTGAAGCCTGTCGTGTTCTCTCCCTTGCACTGGTTCATCAGTATTGTGTAAAGGAACAAGTATATACTTG  
AGTGTGCAAGCAAAGAACCATTGTCATGCTGCTATGAAGACTACTTTTAGATCAACAATAAAAAAACCTAC  
AAAAAAACCTTTATTCTTTAATTGTTGCTTTTACGGTGATATTGTGCATGCAAACCAGGAGCATTTTGTGTCTTA  
AGAAAAATAATCTTAGAACAGATGGCTGTGAAAATTACCCCATGCACAGACAAGCCACAGGAATAATAGTTCA  
GGATTTGGTTTTTCTCTTTTTCTTGTAACCTGGAGGGTTGATATATTCTTTCCATGCAGTTATTAGAAGTTAGT  
TTTGTTCACACAGTTAACTTGCAATGAAAAGAAAATGTGCCATTTTTTCACTCAGAATTATTCATAGCTGTAT  
ATTTGAAACTGCTAATTACACAGTGTGATGTATGTTGGTTTTTTAGTGCAATTTCTTCTGTAGCTATTCTTTGA  
CCAAACTGTGGGTATTGTTAATATTAATTTATATTTGTCTCATTTTGTATGTATGTGTAGTGTGTTGTGAGTAT  
GTGTGGTTTATAATCTGACAAAGTCATGAAGCTCAGTTTGGCTGTAAATTAATCCCCCTTCCCTATTTTTATTT  
ATTTTTGTACTGTGCTGATTCAATAAAATGCACTGACCATCAAAAAAAATCTATGTCGGGTGCGGAGAAAGAGG  
TAATGAATGCGGATTTCGATATCAGCTTAT

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**FIGURE 492**

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**FIGURE 493**

CTCTACCTGACACAGCTGCAGCCTGCAATTCCTCCCACTGCCTGGGATTGCACTGGATCCGTGTGCTCAGAACA  
AGGTGAACGCCCAGCTGCAGCCATGAAGATCTGTAGCCTCACCCCTGCTCTCCTTCCTCCTACTGGCTGCTCAGGT  
GCTCCTGGTGGAGGGGAAAAAAAAAGTGAAGAATGGACTTCACAGCAAAGTGGTCTCAGAACAAAAGGACACTCT  
GGGCAACACCCAGATTAAGCAGAAAAGCAGGCCCGGGAACAAAGGCAAGTTTGTACCAAAGACCAAGCCAACTG  
CAGATGGGCTGCTACTGAGCAGGAGGAGGGCATCTCTCTCAAGGTTGAGTGCACTCAATTGGACCATGAATTTTC  
CTGTGTCTTTGCTGGCAATCCAACCTCATGCCTAAAGCTCAAGGATGAGAGAGTCTATTGGAAACAAGTTGCCCG  
GAATCTGCGCTCACAGAAAGACATCTGTAGATATTCCAAGACAGCTGTGAAAACCAGAGTGTGCAGAAAGGATTT  
TCCAGAATCCAGTCTTAAGCTAGTCAGCTCCACTCTATTTGGGGAACACAAAGCCCAGGAAGGAGAAAACAGAGAT  
GTCCCCCAGGGAGCACATCAAGGGCAAAGAGACCACCCCTCTAGCCTAGCAGTGACCCAGACCATGGCCACCAA  
AGCTCCCGAGTGTGTGGAGGACCCAGATATGGCAAACCAGAGGAAGACTGCCCTGGAGTTCTGTGGAGAGACTTG  
GAGCTCTCTCTGCACATTCTTCCTCAGCATAGTGCAGGACACGTCATGCTTAATGAGGTCAAAGAGAACGGGTTC  
CTTTAAGAGATGTCATGTCGTAAGTCCCTCTGTATACTTTAAAGCTCTCTACAGTCCCCCAAATATGAACTTT  
TGTGCTTAGTGAGTGCAACGAAATATTTAAACAAGTTTTGTATTTTTTGCTTTTGTGTTTTGGAATTTGCCTTAT  
TTTTCTTGGATGCGATGTTTCAGAGGCTGTTTCCTGCAGCATGTATTTCCATGGCCCACACAGCTATGTGTTTGAG  
CAGCGAAGAGTCTTTGAGCTGAATGAGCCAGAGTGATAATTTCAAGTGCAACGAACTTTCTGCTGAATTAATGGTA  
ATAAACTCTGGGTGTTTTTCAAAAAAAAAAAAAAAAAA

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**FIGURE 494**

MKICSLTLLSFLLLAQVLLVEGKKKVKNGLSKVSEQKDTLGNTQIKQSRPGNKGKFVTKDQANCRWAATEQ  
EEGISLKVECTQLDHEFSCVFAGNPTSLCLKLDERVYWKQVARNLRSQKDICRYSKTAVKTRVCRKDFPESSLKL  
VSSTLFGNTKPRKEKTEMSPREHIKGKETPSSLAVTQTMATKAPECVEDPDMANQRKTALEFCGETWSSLCTFF  
LSIVQDTSC

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**FIGURE 495A**

CTGGAGAGCCTGCTGCCCCGCCCGCCGTA AAAATGGTCCCCCTCGGCTGGACAGCTCGCCCTGTTTCGCTCTGGGTAT  
TGTGTTGGCTGCGTGCCAGGCCTTGGAGAACAGCACGTCCCCGCTGAGTGCAGACCCGCCCGTGGCTGCAGCAGT  
GGTGTCCCATTTTAATGACTGCCCAGATTCCACACTCAGTTCTGCTTCCATGGAACCTGCAGGTTTTTGGTGCA  
GGAGGACAAGCCAGCATGTGTCTGCCATTCTGGGTACGTTGGTGCACGCTGTGAGCATGCGGACCTCCTGGCCGT  
GGTGGCTGCCAGCCAGAAGAAGCAGGCCATCACCGCCTTGGTGGTGGTCTCCATCGTGGCCCTGGCTGTCTTAT  
CATCACATGTGTGCTGATACACTGCTGCCAGGTCCGAAAACACTGTGAGTGGTGGCGGGCCCTCATCTGCCGGCA  
CGAGAAGCCCAGCGCCCTCCTGAAGGGAAGAACCCTTGGTGGCACTCAGAAACAGTGGTCTGAAGAGCCAGAG  
GAGGAGTTTGGCCAGGTGGACTGTGGCAGATCAATAAAGAAAGGCTTCTTCAGGACAGCACTGCCAGAGATGCCT  
GGGTGTGCCACAGACCTTCCCTACTTGGCCTGTAATCACCTGTGCAGCCTTTTGTGGGCCTTCAAACTCTGTCAA  
GAACTCCGTCTGCTTGGGGTTATTTCAGTGTGACCTAGAGAAGAAATCAGCGGACCACGATTTCAAGACTTGTAA  
AAAAGAACTGCAAAGAGACGGACTCCTGTTACCTAGGTGAGGTGTGTGCAGCAGTTGGTGTCTGAGTCCACATG  
TGTGCAGTTGTCTTCTGCCAGCCATGGATTCCAGGCTATATATTTCTTTTAAATGGGCCACCTCCCCACAACAGA  
ATTCTGCCAACACAGGAGATTTCTATAGTTATTGTTTTCTGTCACTTGCCTACTGGGGAAGAAAGTGAAGGAGG  
GGAACTGTTTTAATATCACATGAAGACCCTAGCTTTAAGAGAAGCTGTATCCTCTAACCACGAGACTCTCAACCA  
GCCCCAATCTTCCATGGACACATGACATTGAAGACCATCCCAAGCTATCGCCACCCTTGGAGATGATGTCTTAT  
TTATTAGATGGATAATGGTTTTATTTTTAATCTCTTAAGTCAATGTAAAAAGTATAAAACCCCTTCAGACTTCTA  
CATTAAATGATGTATGTGTGCTGACTGAAAAGCTATACTGATTAGAAATGTCTGGCCTCTTCAAGACAGCTAAGG  
CTTGGGAAAAGTCTTCCAGGTGCGGAGATGGAACCAGAGGCTGGGTTACTGGTAGGAATAAAGGTAGGGGTTCA  
GAAATGGTGCCATTGAAGCCACAAAGCCGGTAAATGCCTCAATACGTTCTGGGAGAAAACCTTAGCAATCCATCA  
GCAGGGATCTGTCCCTCTGTTGGGGAGAGAGGAAGAGTGTGTGTGTCTACACAGGATAAACCAATACATATTG  
TACTGCTCAGTGATTAAATGGGTTCACTTCCCTCGTGAGCCCTCGGTAAAGTATGTTTAGAAATAGAACATTAGCCA  
CGAGCCATAGGCATTTAGGCCAAATCCATGAAAGGGGGACCAGTCATTTATTTTCCATTTTGTGCTTGGTTGG  
TTTGTGCTTTATTTTTAAAGGAGAAGTTTAACTTTGCTATTTATTTTCGAGCACTAGGAAAACCTATTCCAGTA  
ATTTTTTTTCCCTCATTTCCATTCCAGGATGCCGGCTTTATTAACAAAACTCTAACAAGTCACCTCCACTATGTG  
GGTCTTCCCTTCCCTCAAGAGAAGGAGCAATTGTTCCCTTGACATCTGGGTCCATCTGACCCATGGGGCCTGCC  
TGTGAGAAACAGTGGGTCCCTTCAAATACATAGTGGATAGCTCATCCCTAGGAATTTTCATTAAATTTGGAAC  
AGAGTAATGAAGAAATAATATATAAACTCCTTATGTGAGGAAATGCTACTAATATCTGAAAAGTGAAAGATTTCT  
ATGTATTAACTCTTAAGTGCACCTAGCTTATTACATCGTGAAAGGTACATTTAAATATGTTAAATTGGCTTGAA  
ATTTTCAGAGAATTTTGTCTTCCCTAATTCTTCTTCTTGGTCTGGAAGAACATTTCTATGAATTTCTCTTT  
ATTTTTTTTTTATAATTCAGACAATTCTATGACCCGTGCTCTTCATTTTGGCACTCTTATTTAACAATGCCACAC  
CTGAAGCACTTGGATCTGTTTCAAGCTGACCCCTAGCAACGTAGTTGACACAGCTCCAGGTTTTTAAATTACTA  
AAATAAGTTCAAGTTTACATCCCTTGGGCCAGATATGTGGGTTGAGGCTTGACTGTAGCATCCTGCTTAGAGACC  
AATCAATGGACACTGGTTTTTAGACCTCTATCAATCAGTAGTTAGCATCCAAGAGACTTTGCAGAGGCGTAGGAA  
TGAGGCTGGACAGATGGCGGAACGAGAGGTTCCCTGCGAAGACTTGAGATTTAGTGTCTGTGAATGTTCTAGTTC  
CTAGGTCCAGCAAGTCACACCTGCCAGTGCCCTCATCCTTATGCCTGTAAACACACATGCAGTGAGAGGCCTCACA  
TATACGCTTCCCTAGAAGTGCTTCCAAGTCAGTCCTTTGGAAACCAGCAGGTCTGAAAAAGAGGCTGCATCAAT  
GCAAGCCTGGTTGGACCATTTGTCATGCCTCAGGATAGAACAGCCTGGCTTATTTGGGGATTTTCTTCTAGAAA  
TCAAATGACTGATAAGCATTTGGCTCCCTCTGCCATTTAATGGCAATGGTAGTCTTTGGTTAGCTGAAAAATACT  
CCATTTCAAGTTAAAAATGCATCTTCTAATCCATCTCTGCAAGCTCCCTGTGTTTCCCTTGCCCTTTAGAAAATGA  
ATTGTTCACTACAATTAGAGAATCATTTAACATCCTGACCTGGTAAGCTGCCACACACCTGGCAGTGGGGAGCAT  
CGCTGTTTCCAATGGCTCAGGAGACAATGAAAAGCCCCCATTTAAAAAATAACAAACATTTTTTAAAGGCCTC  
CAATACTCTTATGGAGCCTGGATTTTTCCCACTGCTCTACAGGCTGTGACTTTTTTAAAGCATCCTGACAGGAAA  
TGTTTTCTTCTACATGGAAAGATAGACAGCAGCCAACCCTGATCTGGAAGACAGGGCCCCGGCTGGACACACGCTG  
GAACCAAGCCAGGGATGGGCTGGCCATTGTGTCCCCGAGGAGAGATGGGCAGAATGGCCCTAGAGTTCTTTTCC  
CTGAGAAAGGAGAAAAAGATGGGATTGCCACTCACCCACCCACACTGGTAAGGGAGGAGAAATTTGTGCTTCTGGA  
GCTTCTCAAGGGATTGTGTTTTGCAGGTACAGAAAACCTGCCTGTTATCTTCAAGCCAGGTTTTCGAGGGCACATG  
GGTCACCAGTTGCTTTTTTCAGTCAATTTGGCCGGGATGGACTAATGAGGCTCTAACACTGCTCAGGAGACCCCTG  
CCCTCTAGTTGGTTCTGGGCTTTGATCTCTTCCAACCTGCCAGTCACAGAAGGAGGAATGACTCAAATGCCCAA

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**FIGURE 495B**

AACCAAGAACACATTGCAGAAGTAAGACAAACATGTATATTTTTAAATGTTCTAACATAAGACCTGTTCTCTCTA  
GCCATTGATTTACCAGGCTTTCTGAAAGATCTAGTGGTTCACACAGAGAGAGAGAGAGTACTGAAAAAGCAACTC  
CTCTTCTTAGTCTTAATAATTTACTAAAATGGTCAACTTTTCATTATCTTTATTATAATAAACCTGATGCTTTTT  
TTTAGAACTCCTTACTCTGATGTCTGTATATGTTGCACGAAAAGGTTAATATTTAATGTTTTAATTTATTTTGT  
GTGGTAAGTTAATTTTGATTTCGTAAATGTGTTAATGTGATTAGCAGTTATTTTCCTTAATATCTGAATTATACT  
TAAAGAGTAGTGAGCAATATAAGACGCAATTGTGTTTTTCAGTAATGTGCATTGTTATTGAGTTGTACTGTACCT  
TATTTGGAAGGATGAAGGAATGAACCTTTTTTTCCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 496**

MVPSAGQLALFALGIVLAACQALENSTSPLSADPPVAAAVVSHFNDPDSHTQFCFHGTCRFLVQEDKPACVCHS  
GYVGARCEHADLLAVVAASQKKQAITALVVVSIVALAVLIITCVLIHCCQVRKHCEWCRALICRHEKPSALLKGR  
TACCHSETVV



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**FIGURE 497**

GAGGGTGGGTGACCCCGGGAATTCGGCACGAGCGGGCGGGGCCACCCGCGAGTCCAGCGTCGCCGACGCCCC  
CCAATGCGGGCCGCGAGAAGCAGCGGGGGGGCAGGCGATCGAAGGAGCCTTCACGTAAATGGGTCCAGTCATGCCT  
CCCAGTAAGAAGCCAGAAAGCTCAGGAATTAGTGTCTCCAGTGGACTGAGTCAGTGTTACGGGGGCGAGCGGTTTC  
TCCAAGGCCCTTCAGGAAGACGATGACCTCGACTTTTCTCTGCCTGACATCCGATTAGAAGAGGGGGCCATGGAA  
GATGAAGAGCTGACCAACCTGAACTGGCTGCACGAGAGCAAGAACTTGCTGAAGAGCTTTGGGGAGTCGGTCCTC  
AGGAGTGTGACCCCCGTCCAGGACCTGGACGATGACACCCCCCATCCCCTGCCCCACTCTGACATGCCCTACGAT  
GCCAGGCAGAACCCCAACTGCAAACCCCCCTACTCCTTCAGCTGCCTCATATTTATGGCCATCGAGGACTCTCCA  
ACCAAGCGCCTGCCAGTGAAGGATATCTACAACCTGGATCTTGGAACATTTTCCGTATTTTGCAAATGCACCTACT  
GGGTGGAAAACTCAGTGAGACACAATTTATCATTGAATAAGTGTTTTAAGAAAGTGGACAAAGAGAGGAGTCAG  
AGTATTGGGAAAGGGTCGTTGTGGTGCATAGACCCAGAGTATAGACAAAATCTAATTCAGGCTTTGAAAAAGACA  
CCTTATCACCCACACCCACACGCTGTTCAATACACCTCCCACCTGTCCTCAGGCATATCAAAGCACATCAGGTCCA  
CCCATCTGGCCGGGACGTACCTTCTTCAAGAGAAATGGAGCCCTTCTCCAAGATCCTGACATTGATGCTGCCAGT  
GCCATGATGCTTTTGAATACTCCCCCTGAGATACAAGCAGGTTTTCTCCAGGAGTGATCCAAAATGGAGCGCGG  
GTCTGAGCCGAGGGCTGTTTCTGGCGTGCGGCCGTGCCAATCACTCCATTGGGGTGACAGCGGCCATGAGG  
AATGGCATCACCAGCTGCCGGATGCCGACTGAGAGTGAGCCATCTTGTGGCTCCCCAGTGGTCAGCGGAGACCCC  
AAGGAGGATCACAACCTACAGCAGTGCCAAGTCTCCAACGCCCGGAGCACCTCGCCACCAGCGACTCCATCTCC  
TCCTCCTCCTCCTCAGCCGACGACCACTATGAGTTTGCCACCAAGGGGAGCCAGGAGGGCAGCGAGGGCAGCGAG  
GGGAGCTTCCGGAGCCACGAGAGCCCCAGCGACACGGAAGAGGACGACAGGAAGCACAGCCAGAAGGAGCCCAAG  
GATTCTCTGGGGGACAGCGGGTACGCATCCCAGCACAAGAAGCGCCAGCACTTCGCCAAGGCCAGGAAGGTCCCC  
AGCGACACACTGCCCCCTCAAAAAGAGACGCACCGAAAAGCCCCCGAGAGCGATGATGAGGAGATGAAAGAAGCG  
GCAGGGTCCCCTCCTGCACCTTAGCAGGGATCCGGTCTGTTTGAATAACATCACCAATCGGACGGCAAAGGGGCGAG  
AAAGAGCAAAAGGAAACCACAAAAAATTAATAACAAGTCACTGATTTGTTTTGAACTTACGACCATTTGGTTTCA  
GCATGTCAGGAGATTTCTAATGATTTGTGGCAATATCAGCAATTTTTTTCTTTTTCTTTGTTTTGGGGTTTGGTT  
TTCTTTCTTTTCTTTTCTTTTATTGGGTTTTAATTTGCCCCCTCTTCTTTGTTTTGGACCCTTAAGAATTTTAT  
TTTTAAAGGAGATTGAAGCCATAGAATCATATTGACACTCAGCTGTTTTACAAAAGCTTTTTCATTATCTGAAGA  
CAAAACCGAAAAAGCCAAAATTACCATTGCTTCCTCCAGCTTGTCAGAAACCTGTGGCTGAATCCGCAGGGATGT  
CAACGTCAATATCACAGGAACACACATTCCGCACCTAGAAGGCACGTGGGCAAAGTAATCATCGTTCAGGCCCAA  
CCCTTAGGTTTAAAAAGTCAGGTTGTCCATCCCATTGGGGTTCACTGAGTGAAGGCACATAAAGCAATTGAGGAG  
GAGGAGGAACCCCTCGTCCCCCTAGGAGCAGACCCAAGCTTGTGGCACCAGGCATCTGATGGTGCCAGGAAAGCC  
ACTGGAATTGTACACGCGGAGCACAGAGGGCCGGCCACCAGTCTCGATGCTTCTGAACCCTGAACCCCGATGA  
CATCTTACGAGGTGGACGTTGGACTGTTTCATGCGCATCGGGTGTGAGTGACTCATGGAGAAGAAATGGGGTAAAT  
TTTTAGTGATGTTGCTAATCATTGAATTCTGTTCTCTATTAAATTAAGAAAATGTTCCAAAAGCCATAAGCCTGA  
AGATTGGCCCTGTGCACGCACGCACACACACACACACACACACACACACACACAGAGGAGAGAGA  
GAGAAAATGATGGGGAAAACAAGCTGTGTCTTCTTAAGTGGCCAAAGTGAAGCAACCAAGTCCAGGAAATTAC  
AATAGCTGTAAAGGAAAGGAAATAATGGTACAGATCTTTTCTGTCTATCAAACTATTTGATCCAAGTGAAAA  
AAAAAAAAAACTAGAAAGCTACGGAACCTGCAATGCGGCCGC

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**FIGURE 498**

MGPVMPPSKKPESSGISVSSGLSQCYGGSGFSKALQEDDDLDLDFSLPDIRLEEGAMEDEELTNLNLWHLHESKNLLKS  
FGESVLRVSPVQDLDDDTTPPSPAHSDMPYDARQNPNCPPYSFSLIFMAIEDSPTKRLPVKDIYNWILEHFPY  
FANAPTGWKNSVRHNLNLNKCFFKKVDKERSQSIGKGSWLCIDPEYRQNLIQALKKTPYHHPHVFNTPTCPQAY  
QSTSGPPIWPGSTFFKRNGALLQDPDIDAASAMLLNTPPEIQAGFPPGVIQNGARVLSRGLFPGVRPLPITPIG  
VTAAMRNGITSCMRTESEPPSCGSPVVSGDPKEDHNYSSAKSSNARSTSPSDSISSSSSSADDHYEFATKGSQE  
GSEGSEGSFRSHESPSDTEEDDRKHSQKEPKDSLGD SGYASQHKRQHFAKARKVPSDLPLKKRRTEKPPESDD  
EEMKEAAGSLLHLAGIRSLNNITNRTAKGQKEQKETTKN

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**FIGURE 499**

CAGCCTCTTGAAAGAGGGACACTGGAGGGGTGTGTTTGCAATTTAAATCACTGGATTTTGGCCACCCTCTTTC  
CAAATAAGAAGGCAGGAGCTGCTTGCTGAGGTGTAAAGGGTCTTCTGAGCTGCAGTGGCAATTAGACCAGAAGAT  
CCCCGCTCCTGTCTCTAAAGAGGGGAAAGGGCAAGGATGGTGGAGGCTTTCTGTGCTACCTGGAAGCTGACCAAC  
AGTCAGAACTTTGATGAGTACATGAAGGCTCTAGGCGTGGGCTTTGCCACTAGGCAGGTGGGAAATGTGACCAAA  
CCAACGGTAATTATCAGTCAAGAAGGAGACAAAGTGGTCATCAGGACTCTCAGCACATTCAAGAACACGGAGATT  
AGTTTCCAGCTGGGAGAAGAGTTTGATGAAACCACTGCAGATGATAGAACTGTAAGTCTGTTGTTAGCCTGGAT  
GGAGACAAACTTGTTACATACAGAAATGGGATGGCAAAGAAACAAATTTTGTAAAGAGAAATTAAGGATGGCAAA  
ATGGTTATGACCCTTACTTTTGGTGATGTGGTTGCTGTTGCGCCACTATGAGAAGGCATATAAATGTTTCCTGGTCTG  
GGGCTTGGAAGAGCTCTTCAGTTTTTCTGTTTCCTCAAGTCTCAGTGCTATCCTATTACAACATGGCTGATCATT  
AATTAGAAGGTTATCCTTGGTGTGGAGGTGGAAATGGTGATTTAAAACTTGTTACTCCAAGCAACTTGCCCAA  
TTTTAATCTGAAAATTTATCATGTTTTATAATTTGAATTAAAGTTTTGTCCCCCCCCCTTTTTTTTATAAACAA  
GTGAATACATTTTATAATTTCTTTTGAATGTAAATCAAATTTGAATAAAAAATCTTACACGTG

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**FIGURE 500**

MVEAFCATWKLINSQNFDEYMKALGVGFATRQVGNVTKPTVIISQEGDKVVIRTLSTFKNTEISFQLGEEFDETT  
ADDRNCKSVVSLDGDKLVHIQKWDGKETNFVREIKDGKMVMTLTFGDVVAVRHYEKA

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**FIGURE 501**

AGCAGTTCTAAGGGACCATACAGAGTATTCCCTCTCTTCACACCAGGACCAGCCACTGTTGCAGCATGAGTTCCCA  
GCAGCAGAAGCAGCCCTGCATCCCACCCCCTCAGCTTCAGCAGCAGCAGGTGAAACAGCCTTGCCAGCCTCCACC  
TCAGGAACCATGCATCCCCAAAACCAAGGAGCCCTGCCACCCCAAGGTGCCTGAGCCCTGCCACCCCAAAGTGCC  
TGAGCCCTGCCAGCCCAAGCTTCCAGAGCCATGCCACCCCAAGGTGCCTGAGCCCTGCCCTTCAATAGTCACTCC  
AGCACCAGCCCAGCAGAAGACCAAGCAGAAGTAATGTGGTCCACAGCCATGCCCTTGAGGAGCCGGCCACCAGAT  
GCTGAATCCCCTATCCCATTCTGTGTATGAGTCCCATTTCCTTGCAATTAGCATTCTGTCTCCCCAAAAAAGA  
ATGTGCTATGAAGCTTTCTTTCTACACACTCTGAGTCTCTGAATGAAGCTGAAGGTCTTAGTACCAGAGCTAGT  
TTTCAGCTGCTCAGAATTCATCTGAAGAGAGACTTAAGATGAAAGCAAATGATTGAGCTCCCTTATACCCCCATT  
AAATTCACCTTTCAATTCCA

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**FIGURE 502**

MSSQQQKQPCIPPPQLQQQOVKQPCQPPQEPICIPKTKEPCHPKVPEPCHPKVPEPCQPKLPEPCHPKVPEPCPS  
IVTPAPAQQKTKQK

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**FIGURE 503**

GGCACGAGGGCCCGTGCCGCCCCAGCCGCTGCCGCCTGCACCGGACCCGGAGCCGCCATGCCCAAGTGTCCCAAG  
TGCAACAAGGAGGTGTACTTCGCCGAGAGGGTGACCTCTCTGGGCAAGGACTGGCATCGGCCCTGCCTGAAGTGC  
GAGAAATGTGGGAAGACGCTGACCTCTGGGGGCCACGCTGAGCACGAAGGCAAACCCTACTGCAACCACCCCTGC  
TACGCAGCCATGTTTGGGCCTAAAGGCTTTGGGCGGGGCGGAGCCGAGAGCCACACTTTCAAGTAAACCAGGTGG  
TGGAGACCCCATCCTTGGCTGCTTGCAAGGCCACTGTCCAGGCAAATGCCAGGCCTTGTCCTCCAGATGCCAGGG  
CTCCCTTGTTGCCCTAATGCTCTCAGTAAACCTGAACACTTGGA

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**FIGURE 504**

MPKCPKCNKEVYFAERVTSLGKDWHRPCLKCEKCGKTLTSGGHAEGKPYCNHPCYAAMFGPKGFGRGGAESHT  
FK



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**FIGURE 505**

CTCCTCTCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACCATGACCACCTCCATCCGCCAGTTACCC  
TCCTCCAGCTCCATCAAGGGCTCCTCCGGCCTGGGGGGCGGCTCGTCCCGCACCTCCTGCCGGCTGTCTGGCGGC  
CTGGGTGCCGGCTCCTGCAGGCTGGGATCTGCTGGCGGCCTGGGCAGCACCTCGGGGGTAGCAGCTACTCCAGC  
TGCTACAGCTTTGGCTCTGGTGGTGGCTATGGCAGCAGCTTTGGGGGTGTTGATGGGCTGCTGGCTGGAGGTGAG  
AAGGCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCAAC  
ACTGAGCTGGAGGTGAAGATCCGTGACTGGTACCAGAGGCAGGCCCGGGGCCCGCCCGTGACTACAGCCAGTAC  
TACAGGACAATTGAGGAGCTGCAGAACAAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACAGATT  
GACAATGCCCCGTCTGGCTGCTGATGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGCGCCTGAGTGTGGAG  
GCCGACATCAATGGCCTGCGCAGGGTGCTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCAGATTGAG  
AACCTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCTGCGAGGCCAGGTGGGT  
GGTGAGATCAATGTGGAGATGGACGCTGCCCCAGGCGTGGACCTGAGCCGCATCCTCAACGAGATGCGTGACCAG  
TATGAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAACTGAACCGC  
GAGGTGGCCACCAACAGTGAGCTGGTGCAGAGTGGCAAGAGTGAGATCTCGGAGCTCCGGCGCACCATGCAGGCC  
TTGGAGATAGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGC  
TACTGCGTGACGCTGTCCCAGATCCAGGGGCTGATTGGCAGCGTGGAGGAGCAGCTGGCCCAGCTTCGCTGCGAG  
ATGGAGCAGCAGAACCAGGAATACAAAATCCTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTAC  
CGCCGCCTGCTGGAGGGAGAGGATGCCACCTGACTCAGTACAAGAAAGAACCGGTGACCACCGCTCAGGTGCGT  
ACCATTGTGGAAGAGGTCCAGGATGGCAAGGTCACTCCTCCCGCGAGCAGGTCCACCAGACCACCCGCTAGGGA  
CTCAGCTACCCCGGCCGCCACCCAGGAGGCAGGGAGCAGCCGCCCATCTGCCCCACAGTCTCCGGCCTCTCCA  
GCCTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCTTGCCTGATGACAATAAAGCTTGTTGACTCAGCTAAA  
AAAAAAAAAAAA

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**FIGURE 506**

MTTSIRQFTSSSSIKGSSGLGGGSSRTSCRLSGGLGAGSCRLGSAGGLGSTLGGSSYSSCYSGSGGGYGSSFGG  
VDGLLAGGEKATMQNLNDRLASYLDKVRAL EEANTELEVKIRDWYQRQAPGPARDYSQYYRTIEELQNKILTATV  
DNANILLQIDNARLAADDFR TKFETE QALRLSVEADINGLRRVLDELTLARADLEMQIENLKEELAYLKKNHEEE  
MNALRGQVGGEINVEMDAAPGV DLSRILNEMRDQYEKMAEKNRKAEDWFFSKTEELNREVATNSELVQSGKSEI  
SELRRMQALEIELQS QLSMKASLEG NLAETENRYCVQLS QIQGLIGSVEEQLAQLRCEMEQQNQEYKILLDVKT  
RLEQEIATYRRLLEGEDAHLTQYKKEPVTTRQVRTIVEEVQDGKVISSREQVHQTTTR

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**FIGURE 507**

CGCCAACCCACCTAGATGCAAAGCAGGATTCAAAAGAACATCTTTGCGTTTTCTACCGGCTCCCCATCATCGTA  
CTAGGGAGGAAGAAGCGGGTGAGAAACAAAACCTTCTTTCCATTGTCCTGCCCGTTTTCTGCGGACTTGTTCTGAGG  
CCGAGGCACCTCTAAGATACTGATCGCTCTGCAGAGGACCCATTTCATTGCTTCTGCTTTTGCTGCTGACCCTGCT  
GGGGCTGGGGCTGGTCCAGCCCTCCTATGGCCAGGATGGCATGTACCAGCGATTCTGCGGCAACACGTGCACCC  
TGAGGAGACAGGTGGCAGTGATCGCTACTGCAACTTGATGATGCAAAGACGGAAGATGACTTTGTATCACTGCAA  
GCGCTTCAACACCTTCATCCATGAAGATATCTGGAACATTTCGTAGTATCTGCAGCACCACCAATATCCAATGCAA  
GAACGGCAAGATGAACTGCCATGAGGGTGTAGTGAAGGTCACAGATTGCAGGGACACAGGAAGTTCCAGGGCACC  
CAACTGCAGATATCGGGCCATAGCGAGCACTAGACGTGTTGTCATTGCCTGTGAGGGTAACCCACAGGTGCCTGT  
GCACCTTGACGGTTAGATGCCACCATGTAGGGATTATCGCGAGTGGTTGACCTTACACTTACTCCTTAAATAGCA  
GTGAGTAATGCATTTGAGCTGCCCCAGGCTCTGTCTCCTCAGCTCATTTCTTACTCTTTTTCTCTATATAACTCA  
TTCTATTAAATACATTGCACCAAAGAGATATGGAGACATAAACCTGTAATGAATGAGGCTGGGCTTTTTCTGTAAT  
AAGCTTCCTTTTATAATACTGGTCAGCTTAGCTCTCTCAGATCCTATCCTGTGGAATTTAGTTATTATGTGTATT  
TATGTAGTATTTCAAACATTTCAAAATGCTTTCATCTATGTTTATCACATTTTAATACCACAGCACTTATAATGA  
TGTCACTACATATAGAAGCTCAAAGTTAAGGGATTGCTGAAGACTGTAAAGTTAATGGAAGAATTGAGACAAAA  
ATCCAGTGTAGCTGGCCACTTATCCAGGGCTTTTTCTACTTCATCACAAGGAATGTTTTGAAAGTGTCTGCTTTT  
TTTATCCTTAAATTCACCTGTCAGGGAGGCATTAAAAATTTGGAAATGTATGCCAGCAAAATGTGAGCTCTGTA  
TTTTTTGGCATTCTTATGTTTGGGTTTAATAAGATTAAGAAAATGATACTGGGAATTTTCTTTTCTGAAACTT  
TGAATCACCCCTAGTAAGTCAAAGTACTAAAAAATGTACTAGATCATTAAGACTTATGTGCTCTTACTGATTGAAA  
GATTTTTTATGTTTTCTTGTAAATAAAGGACCTAAACCGAAGGTACCTGAAAAAAAAAAAAAA

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**FIGURE 508**

MALQRTSLLLLLLLLTLLGLGLVQPSYGQDGMVQRF LRQHVHPEETGGSDRYCNLMMQRRKMTLYHCKRFNTFIH  
EDIWNIRSICSTTNIQCKNGKMNCHEGVVKVTD CRDTGSSRAPNCRYRAIASTRRVVIACEGNPQVPVHFDG

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**FIGURE 509**

GGGCGGGAAGACGTGCAGCCTGGGCCGTGGCTGCTCACTGCGTTCGGACCCAGACCCGCTGCAGGCAGCAGCAGC  
CCCCGCCCGCGCACGAGCATGGAGCTCTGGGGGGCCTACCTCCTCCTCTGCCTCTTCTCCCTCCTGACCCAGGTC  
ACCACCGAGCCACCAACCCAGAAGCCCAAGAAGATTGTAAATGCCAAGAAAGATGTTGTGAACACAAAGATGTTT  
GAGGAGCTCAAGAGCCGTCTGGACACCCTGGCCCAGGAGGTGGCCCTGCTGAAGGAGCAGCAGGCCCTGCAGACG  
GTCTGCCTGAAGGGGACCAAGGTGCACATGAAATGCTTTCTGGCCTTCACCCAGACGAAGACCTTCCACGAGGCC  
AGCGAGGACTGCATCTCGCGCGGGGGCACCTGAGCACCCCTCAGACTGGCTCGGAGAACGACGCCCTGTATGAG  
TACCTGCGCCAGAGCGTGGGCAACGAGGCCGAGATCTGGCTGGGCCTCAACGACATGGCGGCCGAGGGCACCTGG  
GTGGACATGACCGGCGCCCGCATCGCCTACAAGAACTGGGAGACTGAGATCACCGCGCAACCCGATGGCGGCAAG  
ACCGAGAAGTGCAGCGGTCTGTGAGGCGCGGCCAACGGCAAGTGGTTTCGACAAGCGCTGCCGCGATCAGCTGCCC  
TACATCTGCCAGTTCGGGATCGTGTAGCCGGCGGGGCGGGGGCCGTGGGGGGCCTGGAGGAGGGCAGGAGCCGCG  
GGAGGCCGGGAGGAGGGTGGGGACCTTGCAGCCCCATCCTCTCCGTGCGCTTGAGCCTCTTTTTGCAAATAAA  
GTTGGTGCACGTTGCGGGAGAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 510**

MELWGAYLLLCLFSLLTQVTTEPPTQKPKKIVNAKKDVVNTKMFEELKSRLDTLAQEVALLEQQALQTVCLKGT  
KVHMKCFLAFTQTKTFHEASEDCISRGGTILSTPQTGSENDALYEYLRQSVGNEAEIWLGLNDMAAEGTWVDMTGA  
RIAYKNWETEITAQPDGGKTENCAVLGAANGKWFDKRCRDQLPYICQFGIV

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**FIGURE 511**

GCAGAGCCCAGGGAGCTGGAGGTCGGCGCTTCTCTCGTGCTTGGTCCACTGACGCGCGGCCCCGCCGCGAGGAG  
CATCAGATCCATGCTGCTGCTGACTCGGAGCCCCACAGCTTGGCACAGGCTCTCTCAGCTCAAGCCTCCGGTCCT  
CCCTGGGACCCCTGGGAGGCCAGGCCCTGCATCTGAGGTCCTGGCTTTTGICAAGGCAGGGCCCTGCAGAGACAGG  
TGGGCAGGGCCAGCCCCAGGGCCCTGGGCTTCGAACCCGGCTGCTGATCACAGGCCTGTTCTGGGGCTGGACTCGG  
TGGGGCCTGGCTGGCCCTGAGGGCTGAGAAGGAGAGGCTGCAGCAGCAAAAGCGAACAGAAGCCCTGCGCCAGGC  
AGCTGTGGGCCAGGGCGACTTCCACCTGCTGGATCACAGAGGCCGGGCTCGCTGCAAGGCTGACTTCCGGGGCCA  
GTGGGTGCTGATGTACTTTGGCTTCACTCACTGCCCTGACATCTGCCCAGACGAGCTGGAGAAGCTGGTGCAGGT  
GGTGCGGCAGCTGGAAGCAGAGCCTGGTTTGCCCTCCAGTGCAGCCTGTCTTCATCACTGTGGACCCCGAGCGGGA  
CGACGTTGAAGCCATGGCCCGCTACGTCCAGGACTTCCACCCAAGACTGTTGGGTCTGACCGGCTCCACCAAACA  
GGTTGCCCAGGCTAGTCACAGTTACCGCGTGTACTACAATGCCGGCCCCAAGGATGAGGACCAGGACTACATCGT  
GGACCACTCCATTGCCATCTACCTGCTCAACCCCTGACGGCCTCTTCACGGATTACTACGGCCGGAGCAGATCGGC  
TGAGCAGATCTCAGACAGTGTGCGGCGGCACATGGCGGCTTCCGCGAGTGTCTGTCTTGAGCCACTGCAGTCTG  
GGCCCCATCATTAAACGGGCTGCGTTTAAAA

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**FIGURE 512**

MLLLTRSPTAWHRLSQLKPPVLP<sup>1</sup>GT<sup>2</sup>LG<sup>3</sup>QALH<sup>4</sup>LSW<sup>5</sup>LLSR<sup>6</sup>QGP<sup>7</sup>AE<sup>8</sup>TGG<sup>9</sup>QG<sup>10</sup>Q<sup>11</sup>PQ<sup>12</sup>GP<sup>13</sup>LR<sup>14</sup>TR<sup>15</sup>LL<sup>16</sup>IT<sup>17</sup>GL<sup>18</sup>FG<sup>19</sup>AG<sup>20</sup>LG<sup>21</sup>GA<sup>22</sup>W  
LALRAEKERLQQQKRTEALRQAAVGQ<sup>23</sup>GD<sup>24</sup>FH<sup>25</sup>LLD<sup>26</sup>HR<sup>27</sup>GR<sup>28</sup>AR<sup>29</sup>CK<sup>30</sup>AD<sup>31</sup>FR<sup>32</sup>QW<sup>33</sup>VL<sup>34</sup>MY<sup>35</sup>FG<sup>36</sup>TH<sup>37</sup>CP<sup>38</sup>DI<sup>39</sup>CP<sup>40</sup>DE<sup>41</sup>LE<sup>42</sup>KL<sup>43</sup>VQ<sup>44</sup>VV<sup>45</sup>RQ<sup>46</sup>  
LEAEPGLPPVQ<sup>47</sup>PV<sup>48</sup>FI<sup>49</sup>TV<sup>50</sup>DP<sup>51</sup>ER<sup>52</sup>DD<sup>53</sup>VE<sup>54</sup>AM<sup>55</sup>AR<sup>56</sup>YV<sup>57</sup>QD<sup>58</sup>FP<sup>59</sup>RL<sup>60</sup>LG<sup>61</sup>TG<sup>62</sup>SK<sup>63</sup>QV<sup>64</sup>AQ<sup>65</sup>AS<sup>66</sup>HS<sup>67</sup>YR<sup>68</sup>VY<sup>69</sup>YN<sup>70</sup>AG<sup>71</sup>PK<sup>72</sup>DE<sup>73</sup>DQ<sup>74</sup>DI<sup>75</sup>IV<sup>76</sup>DH<sup>77</sup>S  
IAIYLLNPDGLFTDYYGRSRS<sup>78</sup>AE<sup>79</sup>QIS<sup>80</sup>DSV<sup>81</sup>RR<sup>82</sup>HMA<sup>83</sup>AF<sup>84</sup>RS<sup>85</sup>VL<sup>86</sup>S



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**FIGURE 513**

TTCGGCACTTGGGAGAAGATGTTTGAAAAAACTGACTCTGCTAATGAGCCTGGACTCAGAGCTCAAGTCTGAACT  
CTACCTCCAGACAGAATGAAGTTCATCTCGACATCTCTGCTTCTCATGCTGCTGGTCAGCAGCCTCTCTCCAGTC  
CAAGGTGTTCTGGAGGTCTATTACACAAGCTTGAGGTGTAGATGTGTCCAAGAGAGCTCAGTCTTTATCCCTAGA  
CGCTTCATTGATCGAATTCAAATCTTGCCCCGTGGGAATGGTTGTCCAAGAAAAGAAATCATAGTCTGGAAGAAG  
AACAAGTCAATTGTGTGTGTGGACCCCTCAAGCTGAATGGATACAAAGAATGATGGAAGTATTGAGAAAAAGAAGT  
TCTTCAACTCTACCAGTTCAGTGTFTAAGAGAAAGATTCCCTGATGCTGATATTTCCACTAAGAACACCTGCAT  
TCTTCCCTTATCCCTGCTCTGGATTTTAGTTTTGTGCTTAGTTAAATCTTTTCCAGGGAGAAAGAACTTCCCCAT  
ACAAATAAGGCATGAGGACTATGTGAAAAATAACCTTGAGGAGCTGATGGGGCAAACTCAAGCTTCTTCACTCA  
CAGCACCTATATACACTTGGAGTTTGCATTCTTATTTCATCAGGGAGGAAAGTTTCTTTGAAAAATAGTTATTTCAG  
TTATAAGTAATACAGGATTATTTTGATTATATACTTGTTGTTTAATGTTTAAAAATTTCTTAGAAAAACAATGGAAT  
GAGAATTTAAGCCTCAAATTTGAACATGTGGCTTGAATTAAGAAGAAAATTATGGCATATATTAAAAGCAGGCTT  
CTATGAAAGACTCAAAAAGCTGCCTGGGAGGCAGATGGAACCTTGAGCCTGTCAAGAGGCCAAAGGAATCCATGTAG  
TAGATATCCTCTGCTTAAAAAACTCACTACGGAGGAGAATTAAGTCCTACTTTTAAAGAATTTCTTTATAAAATTT  
ACTGTCTAAGATTAATAGCATTTCGAAGATCCCCAGACTTCATAGAATACTCAGGGAAAGCATTAAAGGGTGATG  
TACACATGTATCCTTTACACATTTGCCTTGACAAACTTCTTTCCTCACATCTTTTCACTGACTTTTTTTGTG  
GGGGCGGGGCCGGGGGACTCTGGTATCTAATTCTTTAATGATTCTATAAATCTAATGACATTCAATAAAGTTG  
AGCAAACATTTTACTT

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**FIGURE 514**

MKFISTSLLLMLLVSSLSPVQGVLEVYYTSLRCRCVQESSVFIPRRFIDRIQILPRGNGCPRKEIIVWKKNKSIV  
CVDPQAEWIQRMMEVLRKRSSSTLPVPVFKRKIP

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**FIGURE 515**

GGATCCTGGAGACAACTTTGCCGTGTGACGCGCCGGGAGGACTGCAGGGCCCCGCGGCCGAGGGCTCGGCGCCGCC  
TGTGAGCGGGCCCCGCGCGGCCGGCTCTCCCGGGACCAAGCTTGCTCCGCGCCACTGCCCGCCGGCCCCGCGGCGA  
GGACGACCTGCCCGTCTCCGCGCGCGGCCCTTCTGGCGCGAGGCAGTGAGGGCGAGGCGCTCAGGTGCGAG  
CGCGGGGCCCCGCGCAGCGCCCGCGCAGCGCCGCGCCAAGCCGCGCCCGGCTCCGCTCCGGGGGGCTCCAGCG  
CCTTCGCTTCCGTCTCAGCCAAGTTGCGTGGACCCGCTCTTTCCGCCACCTTCCCCAGCCGCGCGGCCGAACCGCCG  
CTCCCACTGACGCTGCTTTTCGCTTACCCGAACCGGGGCTGCGGGGCCCCGACGCGGAAAGGATGGGGAGAAGG  
CTGCAGATGCCGAGGCGCCCCGAGACGCCCCGTGCGGCAGTGACCCGCGACCTCCGCCCCGCGGCGCGCCCCCTC  
GGGCCCCCGGGGCCCTCGGCGCCCCCTTCCCTGCGCGCGGGGAACCCCCGAGGCCCGGCCGCCCCCTCCCCCTGC  
GAGCCGGCGGCAGCCCTCCCGGCGGGCGGGCGGGCGGAGGCCCGGGCGGGCGCGGGCGGGCGGGGGCGGGGCG  
GGGCGGCGCGCCCGAGCCCGAGCCCGGCCCTGCGCTCGGCTCGACTCGGCTCGCCTCGCGGCGGGCGCCCCCTCG  
TCGCCAGCGGCGCACCATGGACGGGCTGCCCGGTGCGGCGCTGGGGGCCGCTGCTTCTGCTGCTGGCGGCCGG  
CTGGCTGGGGCCTGAGGCCCTGGGGCTCACCCACGCCCCCGCCGACGCTGCGCGCCGCGCCACCCCCGCCACC  
CGGAGCCCCGGGTGGCTCGCAGGACACCTGTACGTGCTGCGGCGGCTTCCGGCGGCCAGAGGAGCTCGGCCGAGT  
GGACGGCGACTTCTTGAGGCGGTGAAGCGGCACATCTTGAGCCGCTGCAGATGCGGGGCGGCCCAACATCAC  
GCACGCCGTGCCTAAGGCCGCCATGGTCACGGCCCTGCGCAAGCTGCACGCGGGCAAGGTGCGCGAGGACGGCCG  
CGTGAGATCCCGCACCTCGACGGCCACGCCAGCCCGGGCGCCGACGGCCAGGAGCGGCTTCCGAAATCATCAG  
CTTCGCCGAGACAGATGGCCTCGCCTCCTCCCGGGTCCGCTATACTTCTTCATCTCCAACGAAGGCAACCAGAA  
CCTGTTTGTGGTCCAGGCCAGCCTGTGGCTTTACCTGAACTCCTGCCCTACGTCTTGAGAAGGGCAGCCGGCG  
GAAGGTGCGGGTCAAAGTGTACTTCCAGGAGCAGGGCCACGGTGACAGGTGGAACATGGTGGAAGAGGGGTGGA  
CCTCAAGCGCAGCGGTGGCATACTTCCCACTCACGGAGGCCATCCAGGCCTTGTTTGAGCGGGGCGAGCGGCG  
ACTCAACCTAGACGTGCAGTGTGACAGCTGCCAGGAGCTGGCCGTGGTGCCGGTGTTCTGTGGACCCAGGCGAAGA  
GTGCGACCGACCCTTTGTGGTGGTGACAGGCTCGGCTGGGCGACAGCAGGACCCGATTTCGAAGCGAGGCCTGGA  
GTGCGATGGCCGGACCAACCTCTGTTGCAGGCAACAGTTCTTCATTGACTTCCGCCTCATCGGCTGGAACGACTG  
GATCATAGCACCCACCGGCTACTACGGCACTACTGTGAGGGCAGCTGCCAGCCTACCTGGCAGGGGTCCCCGG  
CTCTGCCTCCTCCTTCCACACGGCTGTGGTGAACCAGTACCGCATGCGGGGTCTGAACCCCGGCACGGTGAACTC  
CTGCTGCATTCCACCAAGCTGAGCACCATGTCCATGCTGTACTTTCGATGATGAGTACAACATCGTCAAGCGGGA  
CGTGCCCCAATGATTGTGGAGGAGTGCGGCTGCGCCTGACAGTGCAAGGCAGGGGCACGGTGGTGGGGCACGGA  
GGGCAGTCCCGGTGGGCTTCTTCCAGCCCCCGCGGGAACGGGGTACACGGTGGGCTGAGTACAGTCATTCTGT  
TGGGCTGTGGAGATAGTGCCAGGGTGCGGCCTGAGATATTTTCTACAGCTTCATAGAGCAACAGTCAAAAACCA  
GAGCGAGAACCCTCAACTGACATGAAATACTTTAAATGACACGCTAGCCACGCACAGCCAGACGCATCCTGCCA  
CCCACACAGCAGCCTCCAGGATACCAGCAATGGATGCGGTGACAAATGGCAGCTTAGCTACAAATGCCTGTTCAG  
TCGGAGAGAATGGGGTGAGCAGCCACCATTCCACCAGCTGGCCCGGCCACGTCTCGAAGTTGCGCCTTCCCGAGC  
ACACATAAAAGCACAAAGACAGAGACGCAGAGAGAGAGAGAGGCCACGGAGAGGAAAAGCAGATGCAGGGGTGG  
GGAGCGCAGCTCGGCGGAGGCTGCGTGTGCCCCGTGGCTTTTACCAGGCCTGCTCTGCCTGGCTCGATGTCTGCT  
TCTTCCCAGCCTGGGATCCTTCGTGCTTCAAGGCCTGGGGAGCCTGTCTTCCATGCCCTTGTGAGGGGAAAGAG  
ACCCAGAAAGGACACAACCCGTGAGAGACCTGGGAGCAGGGGCAATGACCGTTTGACTGTTTGTGGCTTGGGCCT  
CTGACATGACTTATGTGTGTGTGTGTTTTGGGGTGGGGAGGGAGGGAGAGAAGAGGGGGCTAAATTTGATGCTT  
TAACTGATCTCCAACAGTTGACAGGTCATCCTTGCCAGTTGTATAACTGAAAAGGACTTTTCTACCAGGTATGA  
CCTTTTAAAGTGAATCTGAATTGTTCTAAATGGAAAGAAAAAAGTTGCAATCTGTGCCCTTCAATTGGGGACAT  
TCCTCTAGGACTGGTTTGGGGACGGGTGGGAATGACCCCTAGGCAAGGGGATGAGACCGCAGGAGGAAATGGCGG  
GGAGGTGGCATTCTTGAAGTGTGAGGATGGGGGTGTCCCTCAGCGGAGGCCAAGGGAGGGGAGCAGCCTAGT  
TGGTCTTGGAGAGATGGGGAAGGCTTTCAGCTGATTGTCAGAAGTTGCCCATGTGGGCCCCAACCATCAGGGCTGG  
CCGTGGACGTGGCCCCCTGCCACTCACCTGCCCGCTGCCCGCCCGCCGCATAGCACTTGCAGACCTGCCTGAA  
CGCACATGACATAGCACTTGCCGATCTGCGTGTGCCAGAAGTGCCCTTGGCCGAGCGCCGAACCTCGCTCGCCC  
TCTAGATGTCCAAGTGCCACGTGAACATGCAATTTAAAGGGTTGACCCACACTAGACGAAACTGGACTCGTACG  
ACTCTTTTTATATTTTTTATACTTGAAATGAAATCCTTTGCTTCTTTTTTAAGCGAATGATTGCTTTTAAATGTTT  
GCACTGATTTAGTTGCATGATTAGTCAGAACTGCCATTTGAAAAAAAGTTATTTTTATAGCAGC

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**FIGURE 516**

MDGLPGRALGAACLLLLLAAGWLGPEAWGSPTPPPTPAAPPPPPPPGAPGGSQDTCTSCGGFRRPEELGRVDGDFL  
EAVKRHILSRLQMRGRPNITHAVPKAAMVTALRKLHAGKVREDGRVEIPHLDGHASPGADGQERVSEIISFAETD  
GLASSRVRLYFFISNEGNQNLFFVQASLWLYLKLLPYVLEKGSRRKVRVKVYFQEQQGHGDRWNMVEKRVDLKRSG  
WHTFPLTEAIQALFERGERRNLNDVQCDSCQELAVVPVFVDPGEESHRRPFVVVQARLGDSRHRIRKRGLECDGRT  
NLCCRQQFFIDFRLIGWNDWIIAPTGYYGNYCEGSCPAYLAGVPGSASSFHTAVVNQYMRGLNPGTVNSCCIPT  
KLSTMSMLYFDDEYNIVKRDPNMIVEECGCA

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**FIGURE 517A**

CGCGGGAGCCAACCTTCAGGCTGCTCAGAGGAAGCCCGTGCAGTCAGTCACCTGGGTGCAAGAGCGTTGCTGCCTC  
GGGCTCTCCCGCTGCAGGGAGAGCGGCACTCGCTGGCCTGGATGTGGTTGGATTAGGGGGGCTCCGCAGCAGGG  
GTTTCGTGGCGGTGGCAAGCGCTGCAACAGGTAGACGGCGAGAGACGGACCCCGGCCGAGGCAGGGATGGAGACC  
AAAGGCTACCACAGTCTCCCTGAAGGTCTAGATATGGAAGACGGTGGGGTCAAGTTTCTCAGGCTGTGGAGCGT  
TCTTCCCTGGGACCTACAGAGAGGACCGATGAGAATAACTACATGGAGATTGTCAACGTAAGCTGTGTTTCCGGT  
GCTATTCCAAACAACAGTACTCAAGGAAGCAGCAAAGAAAAACAAGAACTACTCCCTTGCCTTCAGCAAGACAAT  
AATCGGCCTGGGATTTTAACATCTGATATTAAACTGAGCTGGAATCTAAGGAACCTTCAGCAACTGTAGCTGAG  
TCCATGGGTTTTATATATGGATTCTGTAAGAGATGCTGACTATTCTATGAGCAGCAGAACCAACAAGGAAGCATG  
AGTCCAGCTAAGATTTATCAGAATGTTGAACAGCTGGTGAAATTTTACAAAGGAAATGGCCATCGTCCTTCCACT  
CTAAGTTGTGTGAACACGCCCTTGAGATCATTATGTCTGACTCTGGGAGCTCCGTGAATGGTGGCGTCATGCGC  
GCCATTGTTAAAGCCCTATCATGTGTCTATGAGAAAAGCCCGTCTGTTTGCAGCCCTCTGAACATGACATCTTCG  
GTTTGCAGCCCTGCTGGAATCAACTCTGTGTCTCCACCACAGCCAGCTTTGGCAGTTTTCCAGTGCACAGCCCA  
ATCACCAGGGAACCTCTCTGACATGCTCCCCTAATGCTGAAAATCGAGGCTCCAGGTGCGACAGCCCTGCACAT  
GCTAGCAATGTGGGCTCTCCTCTCTCAAGTCCGTTAAGTAGCATGAAATCCTCAATTTCCAGCCCTCCAAGTCAC  
TGCAGTGTAATCTCCAGTCTCCAGTCCCAATAATGTCACTCTGAGATCCTCTGTGTCTAGCCCTGCAATATT  
AACAACCTCAAGGTGCTCTGTTTCCAGCCCTTCGAACACTAATAACAGATCCACGCTTTCCAGTCCGGCAGCCAGT  
ACTGTGGGATCTATCTGTAGCCCTGTAAACAATGCCTTCAGCTACACTGCTTCTGGCACCTCTGCTGGATCCAGT  
ACATTGCGGGATGTGGTTCCAGTCCAGACACGCAGGAGAAAGGTGCTCAAGAGGTCCCTTTTCTAAGACTGAG  
GAAGTAGAGAGTGCCATCTCAATGGTGTGACTGGCCAGCTTAATATTGTCCAGTACATAAAACCAGAACAGAT  
GGAGCTTTTAGCAGCTCATGTCTAGGAGGAAATAGCAAAATAAATTCGGATTCTTCATTCTCAGTACCAATAAAG  
CAAGAATCAACCAAGCATTCTATGTTTCAGGCACCTCTTTAAAGGGAATCCAACAGTAAACCCGTTTCCATTTATG  
GATGGCTCGTATTTTTCTTTATGGATGATAAAGACTATTATCCCTATCAGGAATTTTAGGACCACCTGTGCCC  
GGCTTTGATGGTAACTGTGAAGGCAGCGGATTCCAGTGGGTATTAAACAAGAACCAGATGACGGGAGCTATTAC  
CCAGAGGCCAGCATCCCTTCTCTGCTATTGTTGGGGTGAATTCAGGTGGACAGTCTTCCACTACAGGATTGGT  
GCTCAAGGTACAATATCTTTATCACGATCGGCTAGAGACCAATCTTTCCAACACCTGAGTTCCTTCTCTCTGTC  
AATACTTTAGTGGAGTCATGGAATCACACGGCGACCTGTCGTCTAGAAGAAGTGATGGGTATCCGGTCTTAGAA  
TACATTCCAGAAAATGTATCAAGCTCTACTTTACGAAGTGTCTTACTGGATCTTCAAGACCTTCAAAAATATGT  
TTGGTGTGTGGGATGAGGCTTCAGGATGCCATTATGGGGTAGTCACCTGTGGCAGCTGCAAAGTTTCTTCAA  
AGAGCAGTGGAAGGGCAACACAACCTATTTATGTGCTGGAAGAAATGATTGCATCATTGATAAGATTGACGAAAG  
AATTGTCTGCTTGCAGACTTCAGAAATGTCTTCAAGCTGGAATGAATTTAGGAGCACGAAAGTCAAAGAAGTTG  
GGAAAGTTAAAAGGGATTACGAGGAGCAGCCACAGCAGCAGCAGCCCCACCCCCACCCCCACCCCCGCAAAGC  
CCAGAGGAAGGGACAACGTACATCGCTCCTGCAAAAGAACCTCGGTCAACACAGCACTGGTTTCTCAGCTCTCC  
ACAATCTCACGAGCGCTCACACCTTCCCCGTTATGGTCTTGAACCTGAAATTGTATATGCAGGC  
TATGACAGCTCAAAACCAGATACAGCCGAAAATCTGCTCTCCACGCTCAACCGCTTAGCAGGCAAACAGATGATC  
CAAGTCGTGAAGTGGGCAAAGGTACTTCCAGGATTTAAAAACTTGCCTCTTGAGGACCAAATTACCCTAATCCAG  
TATTCTTGATGTGTCTATCATATTTGCCTTGAGCTGGAGATCGTACAAACATACGAACAGCCAATTTCTCTAT  
TTTGCACCAGACCTAGTCTTTAATGAAGAGAAGATGCATCAGTCTGCCATGTATGAACTATGCCAGGGGATGCAC  
CAAATCAGCCTTCAGTTCGTTTCGACTGCAGCTCACCTTTGAAGAATACACCATCATGAAAGTTTTGCTGCTACTA  
AGCACAATTTCAAAGGATGGCCTCAAAAGCCAGGCTGCATTTGAAGAAATGAGGACAAATTACATCAAAGAAGT  
AGGAAGATGGTAACCTAAGTGTCCCAACAATCTGCGGAGAGCTGGCAGAGGTTCTACCAACTGACCAAGCTGCTG  
GACTCCATGCATGACCTGGTGAGCGACCTGCTGGAATCTGCTTCTACACCTTCCGAGAGTCCCATGCGCTGAAG  
GTAGAGTTCCCCGCAATGCTGGTGGAGATCATCAGCGACCAGCTGCCCAAGGTGGAGTCGGGGAACGCCAAGCCG  
CTCTACTTCCACCGGAAGTGAAGTGGCTGCCCCGCTGCCAGAAGAACTTTGCCTTAAGTTTCCCTGTGTTGTTCCACACC  
CAGAAGGACCCAAGAAAACCTGTTTTTAACATGTGATGGTTGATTACACTTGTTCAACAGTTTCTCAAGTTTAA  
AGTCATGTGAGAGTTTGGAGCCGGGAAAGCTGTTTTCCGTGGATTTGGCGAGACCAGAGCAGTCTGAAGGATT  
CCCCACCTCCAATCCCCAGCGCTTAGAAACATGTTCTGTTCTCGGGATGAAAAGCCATATCTAGTCAATAAC  
TCTGATTTTGTATTTTACAGATGGAAGAAGTTTTAACTATGCCGTGTAGTTTCTGGTATCGTTTCGCTTGT  
AAAAGGGTTCAAGGACTAACGAACGTTTTAAAGCTTACCCTTGGTTTGCACATAAAACGTATAGTCAATATGGGG

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**FIGURE 517B**

CATTAATATTCTTTTGTATTAAAAAACACAAAAAATAATAAAAAATATATACAGATTCTGTGTGTAAATA  
ACAGAACTCGTGGCGTGGGGCAGCAGCTGCCTCTGAGCCCTCGCTCGTCCACGGTCTTCTGCATCACTGGTATAC  
ACACTCGTTAGCGTCCATTTCTTATTTAATTAGAAATGGATAAGATGATGTTAAATGCCTTGGTTTGATTTCTAGT  
ATCTATTGTGTGGCTTTACAAATAATTTTTTGAGTCTTTTGCTGTGTGTACATTACTGTATGTATAAATTAT  
GAAGGACCTGAAATAAGGTATAAGGATCTTTTGTAATGAGACACATACAAAAAATCTTTAATGGTTAATAGG  
ATGAATGGGAAAGTATTTTTGAAAGAATTCTATTTTGCTGGAGACTATTTAAGTACTATCTTTGTCTAAACAAGG  
TAATTTTTTTTTTGTAAGTGCAATGTCCTGCATGCATAATGAACCGTTTACAGTGTATTTAAGAAAGGGAAAGCT  
GTGCCTTTTTTAGCTTCATATCTAATTTACCATTATTTTACAGTCTCTGTTGTAAATAACCACACTGAAACCTCT  
TCGGTTGTCTTGAAACCTTTCTACTTTTTCTGTACTTTTTGTTTTGTTCTTGGTCTCCCGCTTGGGGCATTGTG  
GGACTCCAGCACGTTTTCTGGCTTCTGCTTCATCTGCTCCATCGGGGAATGACACACTGCGGTGTCTGCAGCTC  
CTGGAAGGTGTCATTTGACAACACATGTGGGAGAGGAGGTCCTTGGAGTGTCTGCAGCTTTGGGAAAGCCTGCCTC  
GTTTCCCTTTTCTCTAGAAAGCAGAACCAGCTCTACGAGAGTGAGACTGGGAACCTTGATGGCTCAGAGAGCATCT  
TTTCTCCCATTTTAGAAAATCAGATTTTTCTCTGTGGGAAAAAATTCATGCACTCTCTCTGTATAAGA  
TCAGCTATTCCCTTCTGATCTTGGAAGAGGTTCTGCACTCCTGGAACCGGTCACAGGAACGCACAGATCATGGC  
AGGATGCGCTGGGACGGCCCATCTTGGCAAGGTTTCTGCTGAAATGGCATGGAGACCGGGAGATAGAGGGGTTTTA  
GATTTTTAAAAGGTAGGTTTTAAAAATAAGTTTTATACATAAACAGTTTTGGAGAAAAATTACAGATCATATAAG  
CAAGACAGTGGCACTAAATGTTTAATTCATTAATCTGTTTGTGTTGGCACTGATGCAATGTATGGCTTTTCTCTT  
GCCCCAAATCACAAACATATGTATCTTTGGGGAACTAACAATATGATTGCACTAAATAAACTACTTTGAATAGA  
GGCCAAATTAATCTTTTTAAAAATGATGATAATCATCAGGTTTACTCAGTGAAATCATATTAATTATTTCCAAAA  
TCTAAAAGCTGTAGCTGGAGAAGCCCATGGCCACGAGGAAGCAGCAATTAATTAGATCAACACTTTTCTCCAGGG  
TTCACCATGCAGGCAACATTACCTTGTCTTTCAAAGACACCTGCCTTAGTGCAAGGGGAAACCTGTGAAAGCTG  
CACTCAGAGGGAGGAGTCTTTCTTACATAATTTGCAATTTAGGAATTTAATTTATAGGCAGATCTTTAAATACA  
GTCAACTTACGGTGCACAGTAATATGAAAGCCACACTTTGAAGGTAATAAATACACAGCATGCAGACTGGGAGTT  
GCTAGCAAACAAATGGCTTACTTACAAAAGCAGCTTTTAGTTTACAGACTTAGTTTTTATAAAATGAGAATTCTGAC  
TTACTTAACCAGGTTTGGGATGGAGATGGTCTGCATCAGCTTTTTGTATTAAACAAAGTTACTGGCTCTTTGTGTG  
TCTCCAGGTAACCTTTGCTTGATTAAACAGCAAAGCCATATTCTAAATTCAGTGTGAATGCCTGTCCAGTCCAA  
ATTGCTGTCTGCTCTTATTTTTGTACCATATTGCTCTTAAAAATCTTGGTTTGGTACAGTTTATAATTACCAA  
AAAGTTCATATAATTTAAAGAAACACTAAATTAGTTTAAAAATGAAGCAATTTATATCTTTATGCAAAAACATATG  
TCTGTCTTTGCAAAGGACTGTAAGCAGATTACAATAAATCCTTTACTTT

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**FIGURE 518**

METKGYHSLPEGLDMERRWGQVSQAVERSSSLGPTERTDENNYMEIVNVSCVSGAIPNNSTQGSSKEKQELLPCLO  
QDNNRPGIILTSDIKTELESKELSATVAESMGLYMDSVRDADYSYEQQNQQGSMSPAKIYQNVEQLVKFYKGNHR  
PSTLSCVNTPLRSEMSDSGSSVNGGVMRAIVKSPIMCHEKSPSVCSPLNMTSSVCSPAGINSVSSTTASFGSFPV  
HSPITQGTPLTCSRNAENRGRSHSPAHASNVGSPLSSPLSSMKSSISSPPSHCSVKSPVSSPNNVTLRSSVSSP  
ANINNSRCSVSSPSNTNNRSTLSSPAASTVGSICSPVNNAFSYASGTSAGSSTLRDVVPSPDTQEKGAQEVFPF  
KTEEVESAI SNGVTGQLNIVQYIKPEPDGAFSSSCLGGNSKINS DSSFSVPIKQESTKHSCSGTSFKGNPTVNP  
PFMDGSYFSFMDDKDYSLSGILGPPVPGFDGNCESGFPVGIKQEPDDGSYYPEASIPSSAIVGVNSGGQSFHY  
RIGAQGTISLSRSARDQSFQHLSSFPVNTLVESWKSHGDLSSRRSDGYFVLEYIPENVSSSTLRSVSTGSSRPS  
KICLVCGDEASGCHYGVTGSGCKVFFKRAVEGQHNYLCAGRNDCIIDKIRRKNCPCARLQKCLQAGMNLGARKS  
KKLGKLGKIHEEQPQQQPPPPPPPPQSPEEGTTYIAPAKEPSVNTALVPQLSTISRALTSPVMVLENIEPEIV  
YAGYDSSKPDTAENLLSTLNRLAGKQMIQVVKWAKVLPGFKNLPLEDQITLIQYSWMCLSSFALSWRSYKHTNSQ  
FLYFAPDLVFNEEKMHQSAMYELCQGMHQISLQFVRLQLTFEYYTIMKVLLLLSTIPKDGLKSQAAFEEMRTNYI  
KELRKMVTKCPNNSGQSWQRFYQLTKLLDSMHDLVSDLLEFCFYTFRESHALKVEFPAMLVEIISDQLPKVESGN  
AKPLYFHRK





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**FIGURE 520**

MACRGGAGNGHRASATLSRVSPGSLYTCRTRTHNICMVSDFFYPNMGGVESHYQLSQCLIERGHKVIIVTHAYG  
NRKGIRYLTSGLKVYYLPLKVMYNQSTATTLFHSLPLLRYIFVRERVTHSHSSFSAMAHDALEHAKTMGLQTV  
FTDHSLEFGFADVSSVLTKLLTVSLCDTNHIICVSYTSKENTVLRAALNPEIVSVIPNAVDPTDFTDPDFRRHDS  
ITIVVVSRLVYRKGIDLLSGIIPELCQKYPDLNFIIGGEGPKRIILEEVREYQLHDRVRLLEHAKDVRNVLV  
QGHIFLNTSLTEAFDMAIVEAASGLQVVSTRVGGIPEVLNLIILCEPSVKSLCEGLEKAIQKSGTLPAPPE  
NIHNIVKTFYTWARNVAERTEKVYDRVSVEAVLPMDKRLDRLISHCGPVTGYIFALLAVFNFLFLIFLRWMTDPDSI  
IDVAIDATGPRGAWTNNYSHSKRGGENNEISETR

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**FIGURE 521**

GCCTCTCTTCTTGGCTGCTCAGCTGGGAACATCGTCTCACCAGGGGAGCAGCGACGCGCTGCACAGCCAGACA  
GGAGCTGGTTGCGGGGCATGGAAGCAGCCTCCTTGGCAGCCGGGAGAGGAGCAAGCGCACGCCACTGCCCCGTGAC  
CCAGGCGTCCGGCTGCTGTCCCTGCCGGGAGCTCATCCACGCAGAGGCTCTCTCCCTGTCTCCCTGCGAGCTT  
TTCCTCTGCAGAGCCAGTGGAGCCAGCCATGTACCGCGGCAACGCTTGCTGACCCAGTGAGGAGAGAGGCCTG  
AATCCGAGGGCCCTGGCACCTGTGAGCTCTTGGCTGTACCTGCCCAAGCCTCGCACCTCCGCTCCACAGCAGT  
CCCCACAGGAGACAACCCTGACGGGAGCATGGAGCTGCTGTCCACGCCCCACAGCATTGAGATCAACAACATCAC  
CTGCGACTCCTTCCGCATCTCCTGGGCCATGGAGGACAGTGACCTGGAGAGGGTACCCATTACTTCATTGACCT  
TAACAAGAAGGAGAATAAGAAATTCCAACAAGTTCAAGCACCGGGACGTCCCCACCAAGCTCGTGGCCAAGGCAGT  
GCCACTGCCCATGACGGTGAGAGGCCACTGGTTTCTGAGCCCCCGCACGGAGTACAGTGTGGCCGTGCAGACGGC  
AGTGAAGCAGAGCGATGGGGAGTACCTGGTGTCCGGCTGGAGCGAGACGGTGGAGTTCTGCACTGGGGATTATGC  
CAAGGAGCACCTGGCTCAGCTTCAGGAGAAAGCTGAGCAGATCGCAGGCCGCATGCTCCGCTTCTCCGTCTTCTA  
CCGCAACCATCACAAAGGAGTACTTCCAGCATGCCAGGACCCACTGCGGGAACATGCTGCAGCCTTACCTGAAGGA  
CAACAGCGGCAGCCACGGCTCCCCCACCAGCGGTATGCTCCACGGGGTCTTCTTCAGCTGCAACACGGAGTTCAA  
CACGGGCCAGCCCCCGCAGGACTCCCCCTACGGCCGTGGCGCTTCCAGATCCCAGCTCAGCGCCTCTTCAATCC  
CAGCACCAACCTCTACTTTGCGGACTTCTACTGCATGTACACGGCCTACCACTACGCCATCCTGGTGTGGCGCC  
CAAAGGCTCCCTGGGGGACCGCTTCTGCCGCGACCGCTGCCCTCCTGGACATTGCTTGCAACAAGTTCTTGAC  
CTGCAGCGTGGAGGATGGGGAGCTGGTCTTCCGCCACGCCCAGGACCTCATCCTGGAGATCATCTACACTGAGCC  
CGTCGACCTGTCCCTGGGCACCCTGGGGGAGATCAGTGGGCACCAGCTCATGAGTCTGTCTACTGCCGATGCCAA  
GAAGGACCCAGCTGCAAGACCTGCAACATCAGCGTGGGCGCTTAGGACTCCTGGGGAGCTGGGGGGCGAGGGA  
GAGATGAGCGGAAGGTGGAGGTGGGTAGCCAGGTTCAAGGAGCTGGCTTTCTCTCTCCTGCCCCCTGCTCCCT  
CCACTCTGCCCAGCTGCCCTCCCCCTCGCCCCCTTGGCATTGGAGGCAACAGACGGTGGTCTCTTGGTAAGTGTGG  
CCCACACCCAGCCTGGTGGACATGGAAAGGCTTCTCAGCCTCTGTAGTTGGCAGCTGGGCTGGACTTCTGGAGAA  
CTTCCCTTTTCTCTGGTTTCTTGTCTTCTTGTCTTCTTGGCTCGTCCAGGTCTCTATCTCCCAAAGACCTGCC  
ACCTCCTGGGCTCTCCAGGGAAGCCCCCTTGGGGCAAAGCCCATGGGTAGCTTGGCTGCCTCCAGAAGAGATGC  
AGAGAGCTGTGGGGCGATCTTTCTTAGTCCCACTACCCCACTCAGGGCCAACACAGAATGCCCCCTCCCTGCT  
GAGCTGGGTCTCTGGGGCTTCCCACTCCAGGCTGGATCCCTTCTTCTATAAATAGTCTCCTGCACCACCGTGA  
CTCCCTGGCTGCTCCTTGCCCCAAAGAACCCTCTTCTGTCATGGGAGAGCTGTCCCTCCTTCTCCACCTGCCAC  
CGGGACACTCCCCCTGCTCTCTAGAAAGGAACCTCTTCTTCTTCTTGGCACTGGGGGGCGTCAGGCTGTGCGGATG  
TTCCTTCTTCCATACCCCAAGCATACCTTCTCCTTGCTTAGAGTGCAGGGGTCTGAGACAGCAGCCACTGGGGTT  
GAGGAGGGGGAGGAGACCCCTGAGACCCAGAGGTGCCCTTCTCAGCTGGGAGTGGGCGCCCTCATGCTCTGCT  
GGGGCCTGGCATGGAACGTGAGACCTGTAAGCTGTCCGCGGGGCCCCGGCACCCCGCCAGCTGTGCACTTTGCT  
CACTCGCTCTGCCATGGTGCCATGACTGTACTGTGCCATGCGTGACCTGGACTGTGGACCTCTGCTGCTCCGC  
CTCTCCCCCTCCCCACTGGCTCTGTCTGCTCTCCTGCCACCCTGCTGGCCGGGAGCCCCCTCCCGGGGAGTTCTTG  
GTGAAGTCTTTCCCGGGCCTCCTTGTGTTTTTGCCTCATTCCTACTGTACACAGGTCACGAGGTGGACTCCCT  
ACAATCAACAAAGCAAACAGAGAGCCTGTGGGAGGGGCTGACAGCAGCAGCCGGCTGTTTGGGGGATGATGGAGG  
TGACATCAGGCAGAGGAGAGTGCAGCCTCACAGTGACTTCTCAGAGGTGACAGAGATGATGGATGAGCAGCTGG  
ATTTTCGTGATGAAGGACGGAAGCAGCAGCGGGCCGGCAAGGCCATACCTCGGTGAGGGACAGGTGGACAACGGT  
CACCTATCTGTAGCCAGGGGAGTGTGTGGCCAGCTGTCTCTGCGATGAGTCAGGAGGCTGGAGGCTTGGG  
GAGAGGTGTGGAGAAGGAGAGAACATGGCCAGGCCCTTCTTCCCCCTGTGCTGACAGCATTGCTGTGGGGGT  
GGCCCACTGCCCTCCCCCTGGCCCTCATGTCCCCCGGGGCTGGGGTCCGCTGCCTGTGCTGTGCTTGGCAGCTG  
CATCAATAAACCACCATGGCCTGAGGGCCCTGCTCGTCTC

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**FIGURE 522**

MELLSTPHSIEINNITCDSFRISWAMEDSDLERVTHYFIDLNKKENKNSNKFKHRDVP TKLVAKAVPLPMTVRGH  
WFLSPRTEYSVAVQTAVKQSDGEYLVSGWSETVEFCTGDYAKEHLAQLQEAEQIAGRMLRFSVFYRNHHKEYFQ  
HARTHCGNMLQPYLKDNSGSHGSPTSGMLHGVFFSCNTEFNTGQPPQDSPYGRWRFQIPAQRLEFPSTNLYFADF  
YCMYTAYHYAILVLAPKGS LGDRFCRDRLPLLDIACNKFLTCSVEDGELVFRHAQDLILEIIYTEPVDLSLGTLG  
EISGHLMSLSTADAKKDPSCKTCNISVGR

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**FIGURE 523**

GGTTCTTTGCACTGACCAATGCTGAGAGCAGACCCCTCGGAGCAGCCGGGTGGAAGTGTCTCTCCACAGTCACCA  
GACAGATCCAGGATAGGATGGGCAGCCAGTGCACCGAGTGTCAATTGGGGGATACCTGGAGCAGGCAAATGCACC  
CCGACATAGAGAGCGAGAGGTATATGCAGTCCTTTGACGTGGAACGGCTCACCAACATCCTTGATGGAGGTGCCC  
AGAACACTGCACTCCGCAGGAAAGTTGAGAGCATCATCCACAGTTACCCGGAGTTTAGCTGTAAGGACAATTATT  
TCATGACCCAGAATGAGCGTTATAAGGCTGCCATGCGGAGGGCATTCCACATCCGGTTGATAGCTCGGCGCCTGG  
GTTGGTTAGAAGATGGTCGTGAATTAGGCTACGCTTACAGAGCCCTTTCTGGAGACGTGGCCTTAAATATACACA  
GAGTCTTCGTGAGAGCCCTCAGGAGCCTGGGCTCAGAGGAGCAGATTGCCAAATGGGACCCACTCTGCAAAAAACA  
TCCAGATCATCGCAACGTATGCACAGACAGAGTTGGGACATGGGACATATCTTCAGGGCCTGGAGACTGAAGCCA  
CCTATGACGCAGCCACCCAGGAGTTTGTGATACACAGCCCCACGCTGACTGCCACCAAATGGTGGCCTGGAGACT  
TGGGACGGTCAGCCACCCATGCCCTGGTCCAGGCCCAGCTGATCTGCTCAGGAGCCAGGCGGGGCATGCACGCTT  
TTATTGTGCCAATCCGGAGTCTTCAGGACCACACCCCACTGCCAGGAATCATCATTGGGGACATCGGACCCAAGA  
TGGACTTTGATCAAACAGACAATGGCTTCCTGCAGCTGAACCATGTGCGGGTCCCCAGGGAGAACATGCTGAGTC  
GCTTTGCACAGGTCTTGCCAGATGGCACCTACGTCAAACCTCGGTACAGCACAGAGCAACTACCTTCCCATGGTGG  
TGGTGCGGGTGGAGCTGCTGTGAGGGGAGATCCTCCCTATACTGCAGAAGGCCTGTGTGTCATCGCCATGCGCTACT  
CGGTATCCGCCGCCAATCCCGGCTCCGGCCAGTGACCCAGAGGCAAAGTCTTGGACTACCAGACACAACAGC  
AGAACTCTTCTCAGCTGGCCATCAGTTATGCCTTCCATTTCTGGCAGTCAGCCTCTTGGAGTTCTTCCAGC  
ACTCCTACACTGCCATTCTGAACCAAGACTTCAGCTTCTGCTGAGCTCCACGCGCTGAGCACGGGCATGAAGG  
CCATGATGTGAGAATTCTGCACCCAGGGAGCTGAGATGTGCCGCAGGGCCTGTGGCGGACATGGCTACTCAAAGC  
TGAGTGGCCTGCCATCACTGGTCACCAAATTGTGCGCCTCCTGCACCTACGAGGGTGAGAACACAGTGCTCTACC  
TGCAGGTGGCCAGGTTTCTGGTGAAGAGCTACCTGCAGACTCAGATGTCCCTGGCTCCACGCCACAGAGATCTC  
TCTCTCCATCTGTGCGATATCTCACCGCACCTGACCTGGCCAGGTGTCCAGCCCAGAGGGCAGCCGACTTCTCT  
GCCCCGAGCTCTACACCACGGCCTGGGCACATGTGGCAGTAAGGCTCATAAAGGACTCAGTGCAGCATTTACAGA  
CCCTGACGCAATCCGGAGCTGACCAGCACGAGGCTTGGAACCAGACCACTGTATACACCTCCAGGCTGCTAAGG  
TGCACTGCTACTATGTCACTGTGAAGGGTTTTACAGAAGCTCTGGAGAACTAGAAAAATGAACCAGCGATTTCAGC  
AGGTGCTCAAGCGCCTCTGTGACCTCCATGCCATACATGGAATCTTGACTAACTCGGGTGACTTTCTCCATGACG  
CCTTCTGTCTGGTGCCCAAGTGGACATGGCAAGAACAGCCTACCTGGACCTGCTCCGCTGATCCGGAAGGATG  
CCATCCTGTTAACTGATGCTTTTGACTTCACCGATCAGTGTAAATTTCAGCCCTTGGCTGTTATGATGGAAACG  
TCTACGAACGCCTGTTCCAGTGGGCTCAGAAGTCACCAACCAATACTCAGGAGAACCTGCCTATGAGGAATATA  
TAAGACCACTTTTACAAAGTTGGAGATCCAAGCTATGAATAACCAACAGTATTCAAGAAGCAACCAGCACCATC  
ATGTGATAATGGTACTATGGCATATATGCAACATTAAATTTTAAATTAG